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ABSTRACT

This report analyzes state policies and practices in pricing public higher education through tuition levels and related issues of finance, access, and policy development. The first chapter outlines the current heightened tension over tuition levels and policies. Chapter 2 looks at policies and procedures for tuition at public institutions as they vary across states. This section examines factors such as tuition guidelines and institutional philosophies, bodies with authority in setting tuition, economic and cost factors used in setting tuition, and policies that relate tuition to the cost of education. Chapter 3 examines the increased interest in tuition differentials, waivers, and financial assistance for students to help offset tuition charges. This section notes and examines the increasing move to make decisions about eligibility or amount of assistance provided to individual students at the state policy level through guidelines, eligibility criteria, limiting assistance waivers, or determining assistance through standardized formulas. Chapter 4 examines the growth in tuition as a source of revenue to support public higher education which reflects increases in tuition rates as well as other factors. Appendixes include a 1992-93 survey of state tuition policies, three tables on state tuition and fees, and summary data on tuition revenues in public institutions by state. (JB)

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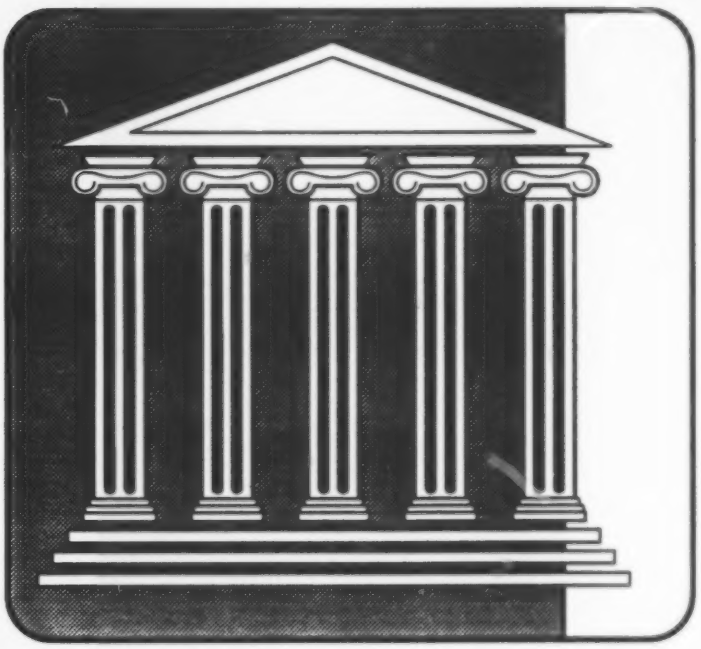
The Tuition Dilemma– State Policies and Practices in Pricing Public Higher Education



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SHEEO

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1. Tuition and State Policy

Tuition charges to students at public institutions have become a perennial issue in the financing of public higher education.

This was not always the case, at least not with today's intensity. Prior to about 1970, tuition at most public institutions was uniformly low across states and similar types of public institutions. Tuition charges have increased rapidly for twenty years, however, and differences among institutions and across states have increased as well.

The context within which tuition decisions are made also has become much more financially and politically complex. Today, tuition policies are pulled in different directions by competing ideas about the most "efficient" pricing and allocation of higher education, about the best way to deal with escalating costs in providing education, and about the relation of tuition to the availability of need-based student assistance, to mention just a few of the related economic and policy considerations.

Tuition . . . has become a touchstone for issues of access, cost, and public accountability.

Tuition, in short, has become a touchstone for issues of access, cost, and public accountability.

This report examines, in detail and from several perspectives, state policies and procedures affecting public-institution tuition in the 1990s. The growing debate over these policies and how much students and the public should pay for higher education is occurring in every state, varying in detail but growing in intensity.

These annual debates pit the public values inherent in providing broad access to higher education against the private benefits derived from the education, with these values set against a background of rising costs and limited public resources. Always implicit, but often not sufficiently explicit, are questions such as: What proportion of the population should be enrolled in higher education? What resources do they bring, or, alternatively, what financial assistance do they need? What types of education should be provided? and How will society benefit from their and our investment in higher education?

Tuition policies raise questions for which there are no simple or permanent answers. As this report underscores, tuition-setting is a process more than a product, a negotiation more often than a technical formula, and a search for the best balance among objectives more often than a permanent solution. This is not inappropriate, except that in recent years many states and public institutions appear to have allowed tuition rates to increase in excess of the principles and guidelines written into existing policy, and to jump ahead of public perceptions of what higher education ought to cost. The result not only undermines these policies, but puts public support and understanding as well as students' ability and willingness to pay at risk.

This report does not provide answers to the questions raised in the context of tuition policies, but it does provide much information on how states are attempting to deal with these issues.

This first chapter sets the context for the examination of state tuition policies—first, outlining the components and principles of tuition policy going back to the Carnegie Commission reports on tuition in the early 1970s; and, second, looking at the increases in tuition rates nationally that have occurred since that period.

Based on a survey of state-level coordinating agencies or multi-institution governing boards in all fifty states, the following chapters examine the major components of tuition policies, tuition-setting procedures, and the issues being addressed at that level.

Chapter 2 focuses on the underlying philosophies or social values embedded in state policies for setting tuition, and how these relate to tuition rates and external economic variables. Chapter 3 examines tuition differentials and waivers and the relationship of tuition to student financial aid. Chapter 4 looks at the control over, use, and growth of tuition revenues.

The final chapter examines the search for new state policy frameworks to address the dilemma between maintaining some tuition philosophy or guidelines and dealing with the needs of financing higher education.

The Emergence of Tuition as Public Policy

Two decades ago, two sequential reports by the Carnegie Commission for Higher Education outlined many of the major issues that states still struggle to address today. *Higher Education: Who Pays? Who Benefits? Who Should Pay?* was developed by a panel of educators, researchers, and public leaders and published by the Carnegie Commission in 1973.[1]

The extensive report and the research it embodied supported eight recommendations or "directions" for the future financing of higher education, most of which focused on student charges at public institutions. Several of these recommendations dealt directly with student costs: tuition should be raised in conjunction with financial aid to achieve some redistribution of public subsidies from higher- to lower-income students; the gap between public and private institution tuition should be decreased; and there should be greater reliance on student loans.

Some recommendations dealt directly with government roles: the public share of financial support should be increased with redistribution of this burden from the states (and localities) to the federal government; and private institution access and support should be increased relative to the public.

Finally, several recommendations dealt with institutional financing: setting tuition in proportion to the actual costs of education; and conserving resources to minimize the overall cost increases. This first Carnegie report on tuition policy found that in the early 1970s, on average, tuition in public four-year institutions met 17 percent of total educational costs. The report recommended that this be increased within ten years to 33 percent of total education costs, and that the states, with help from the federal government and other sources, should bear the remaining two-thirds of the direct costs.

This first report raised such strong comment, particularly from within the public higher education community, that staff for the Carnegie Commission issued a second report within a year.[2] In part a rebuttal to various criticisms, and in part an updating and modification of several of the earlier report's findings, the second report supported the commission's recommendations and admonished those who had not viewed them as an integral package.

But the second report did revise and update some of the important data. The ratio of tuition to total costs of education at public institutions was found to be 24 percent in 1973–74 (using newer numbers and excluding separate research expenditures), thereby lessening the increases necessary to reach the 33 percent tuition share. The second report also emphasized national variations:

> National figures fail to disclose the enormous variations of policies and practices among and within the states. Some states are already at or above the general level of public tuition revenue as a percentage of educational costs at public institutions recommended . . . by the Carnegie Commission, while others are much farther below this level than the national averages might imply. Also within states, some categories of institutions are much closer to the suggested . . . level than are others.[3]

The variability of conditions and rates has not changed in the subsequent twenty

years, although the rates and ratios clearly have, as discussed in subsequent sections and chapters.

The two Carnegie reports did not set a national pattern for tuition policy, but they did articulate many of the policy issues that would emerge in the following decades at the state and national levels. Many states, for example, developed a "cost-sharing" philosophy for tuition such as that embodied in the Carnegie recommendations, and some followed the "one-third student/two-thirds state" proportions. What most subsequent state policies did articulate was the need for some set of principles or social values on which tuition decisions should be made, grounded in some sense of the social and individual benefits of higher education.

The Carnegie reports also anticipated major issues to be faced by state tuition policy—the income sensitivity and redistributive effects of subsidized public tuition, the necessary linkages between tuition policy and student financial aid, and the effects of tuition policy on different sectors of higher education, particularly the public/private cost "gap." Finally, the Carnegie reports recognized the reciprocal relationship between public institution tuition and state support, and that of the two, stability and adequacy of state support was the most important component.

These issues provide a backdrop to the evolution of state tuition policies in the subsequent two decades, with the concern over proportional state support or cost-sharing in particular coming to the forefront in recent years.

Changes in Rates and Resources

Without question, tuition rates at public institutions have increased steadily since the Carnegie reports were published in the early 1970s. Table 1-1 and Graph 1 present simplified, long-term indicators of the average increases across all states and the three sectors of public research universities, state colleges and comprehensive universities, and community colleges.

At public research universities, average in-state undergraduate tuition was $549 in 1972–73. (This calculation is based on the simple average of tuition or educational fees at "the university of . . ." or other leading public research university in each state.)

Table 1-1

Increases in Public Institution Tuition
1972–73 to 1992–93

	Research Universities	State Colleges and Comprehensive Universities	Community Colleges
Average Tuition*			
1972–73	$ 549	$ 466	N/A
1982–83	1,136	942	$ 547
1987–88	1,710	1,385	782
1992–93	2,627	2,123	1,152
Percent Change			
1972–73 to 1982–83 (10-year)	107%	102%	N/A
1982–83 to 1992–93 (10-year)	131%	125%	111%

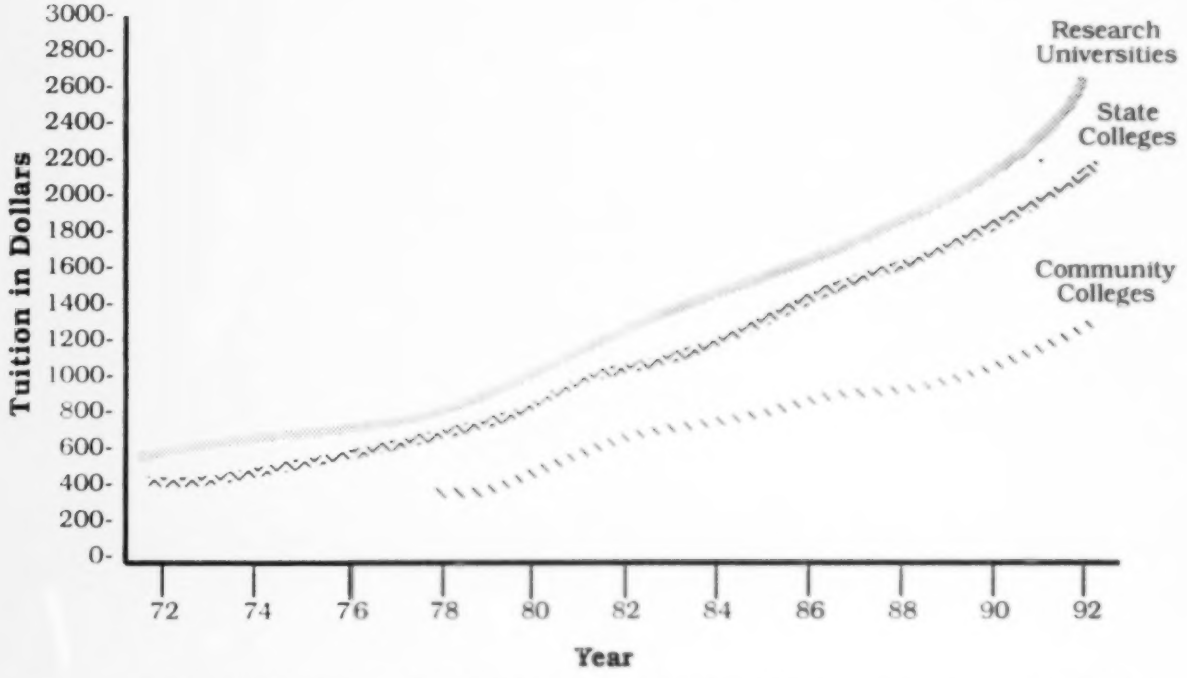
*Based on simple average of resident undergraduate tuition rates for all states and institutions included in the Washington Higher Education Coordinating Board data set. See Appendix B. All rates are in current dollar values.

This more than doubled to $1,136 by 1982-83 (a 107 percent increase), with an even sharper 131 percent increase in the following 10-year period. The steepest increases at a public research uiniversity have come in the most recent five-year period, increasing from $1,710 in 1987–88 to $2,627 in 1992–93.

Similar patterns are shown on Table 1-1 and Graph 1 for average state college and comprehensive university tuition rates and for average community college tuition. Average state college and comprehensive or regional public universities increased tuition from $466 in 1972-73 to $2,123 in 1992-93, including more than a 50 percent increase in the most recent five years. Average community college tuition more than doubled during the 1980s.

It should be noted that these national averages do not reveal the wide variations across states and institutions in rates of increase as well as actual tuition levels, as discussed in subsequent chapters. Since these rates are given in current dollar values, they also reflect inflation and underlying cost increases.

Graph 1
Increases in Average Public Tuition, 1972–1992

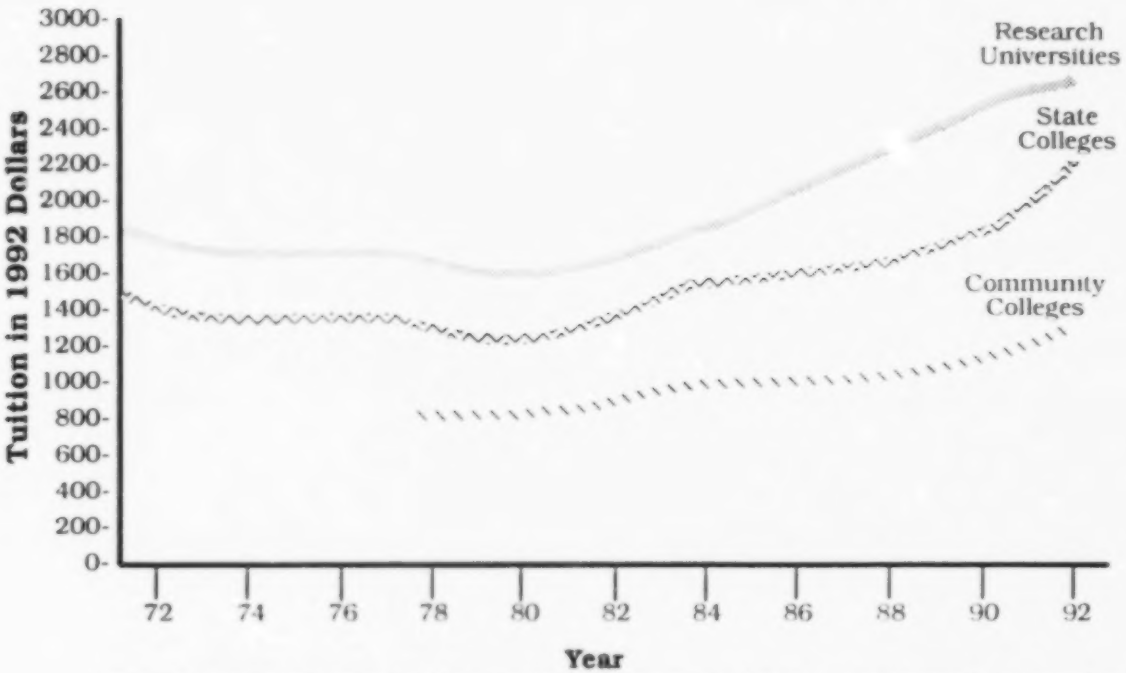


Source: Washington Higher Education Coordinating Board data set. See Appendix B. Based on unweighted average of states.

As illustrated on Graph 2, in constant dollar values average tuition rates decreased slightly through the 1970s, but significantly exceeded the underlying inflation rates and general cost increases during the 1980s.

rate of per capita disposable income from 1930 to the early 1970s. Graph 3 shows a similar comparison between average tuition and the growth in per capita income since the early 1970s.

Graph 2
Average Tuition Rates in 1992 Constant Dollar Values



Source: Washington Higher Education Coordinating Board data set. See Appendix B. Based on unweighted average of states.
Note: Based on tuition data used in Graph 1 adjusted to 1992 dollar values using the Consumer Price Index.

There are are numerous ways to examine these increases in tuition rates in addition to taking into account general cost increases and inflation. States frequently look at tuition in relation to state general fund appropriations, growth in state personal income, and other relevant economic variables, as discussed in Chapter 2.

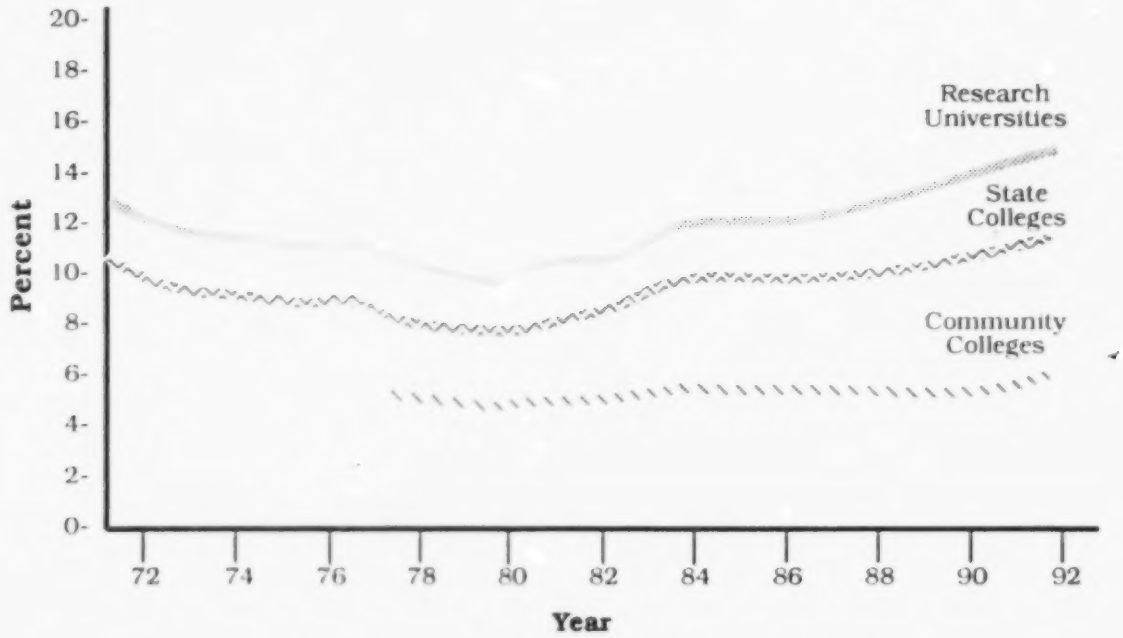
The Carnegie Commission reports of the early 1970s noted the close historical relationship between tuition and the growth of per capita wealth in the nation: in particular, that tuition tended to rise at about the

Average tuition at public research universities was equivalent to 12.8 percent of per capita personal income in 1972–73.[4] This ratio decreased steadily in the 1970s, reaching a low of 9.7 percent of personal income in 1980–81. This relative decrease resulted because tuition did not increase as rapidly as personal income and general price increases during this period. Since 1980–81, the ratio has climbed steadily, returning to the 1972–73 level by 1991–92 and continuing up to 13.7 percent of per capita personal income in 1992–93.

The average tuition at state colleges and

comprehensive universities followed a similar pattern, falling from 10.8 percent of per capita income in 1972–73 to 8.1 percent in 1980–81, rebounding through the 1980s to 11.1 percent of per capita income in 1992–93. At community colleges, average tuition fell slightly in the late 1970s to 4.8 percent of per capita income in 1980–81, and increased gradually in the 1980s to 6.0 percent of per capita income in 1992–93.

Graph 3
Public Institution Tuition as a Percent of Per Capita Income



Source: Washington Higher Education Coordinating Board data set. Based on state-average public institution resident undergraduate tuition rates and per capita personal income for the prior calendar year.

Graph 3 illustrates that average public-institution tuition was approximately the same proportion of per capita personal income in 1991–92 as in 1972–73. This is surprising given the steady increase in tuition rates. Tuition in the late 1970s and into the 1980s appears to have been at historical lows in relation to national wealth. The increases in this ratio have been steady since the early 1980s, and appear to have accelerated around 1990. This acceleration, in turn, reflects both higher tuition rates and slower growth in per capita personal income.

These ratios, however, vary substantially across the states. More importantly, the ratios are not the best indicator of the affordability of college and university tuition for students and families. Per capita personal income is a measure of the income wealth produced by the nation as a whole. To examine student affordability, a much better indicator would be family or disposable income for those enrolled or hoping to enroll in higher education.

Better yet, this analysis should be done by income quartiles or deciles to show affordability across income groups and changes in the distribution of income over time, and would need to take into account the availability and use of financial aid to offset the cost of tuition.

2. Policies and Procedures for Public Institution Tuition

Tuition charges (or the equivalent education fees) vary substantially across the fifty states. At the baccalaureate level, basic student charges for a full-time, full-year state resident student vary from less than $1,300 to more than $6,000, exclusive of non-education fees (many of which are mandatory) and living expenses. Graduate and professional degree tuition charges are generally higher, and out-of-state residents are often charged two or three times the resident rates. At the two-year, community college level, the equivalent tuition and fee charges vary from less than $300 to more than $3,000.

Variations of this magnitude make it difficult to generalize across institutions and states without addressing the specific context and rates involved. Notwithstanding this wide variability, standard tuition charges at most public institutions cluster below the mid-points of these extremes. In 1992–93, the average tuition for full-time, state resident students at the primary public research university in each state was about $2,600, at state colleges about $2,100, and at community colleges about $1,200.

In all states and public institutions, these tuition charges are influenced, either directly or indirectly, by state policies and by the level and procedures for direct state support for public institutions. Like tuition rates, these policies and budgetary procedures exhibit great variability. As a matter of policy and, it appears, public perception, tuition that is considered "low" in one state may be viewed as "high" in another.

The wide variations and seeming inconsistencies between policies, perceptions, and actual rates become clear when these factors are examined in a comparative framework across the states. As with the variability in tuition charges, however, there are also some strong central tendencies in tuition policies and practices, with most states sharing a number of common characteristics.

Tuition Guidelines at the State Level

Great variations also exist across states in basic policy guidelines—that is, the underlying philosophies and decision-making procedures—involved in setting public institution tuition levels. Within states, there is often similar variation across the major sectors of public higher education—research universities, state colleges (including comprehensive universities and baccalaureate colleges), and community colleges—and even across individual institutions of the same type. These different approaches to public sector tuition are summarized in Table 2-1. (See Appendix A for the complete statements of each tuition approach.)

Table 2-1

Variations in Tuition Philosophy and Procedures

	Number of States		
Philosophy/Procedure	**Research Universities**	**State Colleges and Universities**	**Community Colleges**
Low tuition philosophy	8 (16%)	6 (12%)	14 (29%)
Moderate tuition philosophy	18 (36%)	21 (44%)	19 (40%)
High tuition philosophy	5 (10%)	5 (10%)	3 (6%)
Tuition "indexed" to comparable institutions	7 (14%)	6 (12%)	4 (8%)
Institution-level decisions only	12 (24%)	10 (21%)	8 (17%)
TOTAL	50	48	48

As a matter of policy or philosophy, eight states (16 percent) attempt to maintain "low tuition" in their public research universities, defined as tuition as low as possible in order to maximize student access. This group of eight (Arizona, California, Hawaii, New Mexico, New York, North Carolina, Washington and Wyoming) includes both large and small states, wealthy and relatively poor, with different systems for institutional governance and statewide coordination. Of these states, the six that have state public colleges attempt to maintain a "low tuition" philosophy for these institutions as well. (Arizona and Wyoming have only research universities at the four-year level.) For public community colleges, a total of fourteen states attempt to maintain a "low tuition" policy (29.2 percent). Two of the states with a "low tuition" philosophy for public research universities and state four-year colleges indicate that some other guideline applies to community colleges.

The operative philosophical principle among these "low-tuition" states appears to be the adherence to ensuring access to public institutions through tuition perceived to be as low as possible. As indicated in Table 2-2, however, there is substantial variation in what this means in practice—how "low tuition" philosophy translates into rates.

Among the eight states using such guidelines for research universities, the average tuition at the state's leading research university is $1,992 for 1992–93. This average is lower than for the other groupings of states on Table 2-2. However, the average is not a very meaningful description of the group given that among these universities tuition varies from a low of $1,249 to a high of $3,249 (from less than one-half of the all-state average for research universities of $2,627, to approximately 25 percent above the national average).

In short, across the states there is no common or shared definition of what low tuition means in terms of actual student charges. These context-specific meanings of tuition philosophy and rates are apparent even before one attempts to take into account differences in the types of education that tuition buys across institutions, the availability to financial aid that may reduce tuition charges, and other factors that tend to reduce comparability.

"Moderate tuition" states are those, by our definition, that apply a proportional cost-sharing philosophy in which there is an explicit recognition that both the individual student and the state bear some responsibility for meeting the cost of postsecondary education. Generally, student charges comprise less than one-half of total costs. (Conversely, state funding comprises more than one-half of total costs.)

Many states in this category attempt to follow the guidelines outlined in the Carnegie Commission reports of the early 1970s, which recommended a one-third proportion of costs to be borne by tuition charges and two-thirds by the state (see Chapter 1). Existing guidelines for states applying this proportional cost-sharing principle, however, vary from less than 20 percent to approximately 50 percent, and are highly dependent upon the variable definitions of tuition (rates or revenues) and education costs that are used, as discussed in the final sections of this chapter. The distinguishing principle is that of proportional cost-sharing, as distinct from justifying low tuition as a means to maximize access.

More states describe themselves as applying "moderate tuition" policies than any other approach, although this is still significantly less than half the states. As indicated in Table 2-1, eighteen states (36 percent) perceive themselves as applying a "moderate tuition" policy for research universities, twenty-one states (44 percent of responses) as using this approach for state colleges and universities, and nineteen (40 percent) for public community colleges.

The average, low, and high tuition rates by sector for states in this category are illustrated in Table 2-2. In all cases, the average is higher than for the "low tuition" states ($2,637 as compared to $1,992 for research universities), but the range from low to high substantially overlaps the "low tuition" states. Also, the range from low to high within each cell indicates the wide variation in rates across these "moderate tuition" states.

Table 2-2

Variation in Tuition Rates by Category/Sector, 1992-93

Philosophy/Procedure	Research Universities	State Colleges and Universities	Community Colleges
Low tuition philosophy	Average: $1,992 Low: 1,249 High: 3,249	Average: $1,722 Low: 1,204 High: 2,901	Average: $ 884 Low: 300 High: 1,572
Moderate tuition philosophy	Average: 2,637 Low: 1,706 High: 4,799	Average: 2,057 Low: 1,384 High: 3,150	Average: 1,313 Low: 652 High: 1,942
High tuition philosophy	Average: 3,613 Low: 1,420 High: 6,166	Average: 2,786 Low: 1,832 High: 3,549	Average: 1,693 Low: 1,230 High: 1,932
"Indexed" to comparable institution	Average: 1,917 Low: 1,296 High: 2,435	Average: 1,723 Low: 1,324 High: 2,228	Average: 945 Low: 700 High: 1,276
Institution-level decisions only	Average: 3,039 Low: 2,068 High: 4,618	Average: 2,414 Low: 1,660 High: 3,236	Average: 1,186 Low: 911 High: 1,746
All States	Average: $2,627	Average: $2,123	Average: $1,152

"Moderate tuition" at community colleges, for example, varies from $652 to $1,942, a multiple of nearly three.

"High tuition" philosophies for public institutions are, in most cases, a recent development. As a matter of public policy, this approach emerged subsequent to the Carnegie reports and has been advocated as a more economically rational and equitable pricing policy for higher education since the expansion of need-based financial aid in the 1960s and 1970s. We have defined a "high tuition" policy as one under which, over a period of years, tuition levels have increased more rapidly than state support in the belief that students who have the ability to pay should bear a larger proportion of their education costs.

This definition implies that a "high tuition" strategy works in tandem with a strong commitment to need-based financial aid, although this is not uniformly true. In any case, a relatively small number of states view themselves as pursuing this "high tuition" approach: five in relation to research universities and state colleges, and three in relation to community colleges. Eastern, midwestern, and southern states are included; there are no states from the West. In all but two instances (one state with respect to research universities and one with respect to state colleges), tuition rates in these "high tuition" philosophy states are above the national average. With the exception of Vermont, however, a "high-tuition" philosophy does not necessarily translate into tuition levels that are higher than many "moderate tuition" states or those allowing all tuition decisions to be made at the institution level.

In a small number of states, tuition charges at public institutions are formally "indexed" to the levels at peer-group institutions or to regional averages, either as a matter of policy or practice: this group includes seven states with respect to research universities, six with respect to state colleges and universities, and four with respect to community colleges. (This does not include individual institutions that may use peer-group comparisons to set tuition rates outside of a state policy framework.)

There are two noteworthy characteristics of the tuition rates in these states that use tuition indexing. First, in all three sectors (research universities, state colleges and universities, and community colleges), the

averages for the indexed states are *lower* than the national averages, and lower than or approximately equal to the average tuition rates in those states adhering to a low tuition philosophy. Apparently, states using an indexing approach tend to select relatively low tuition states or institutions as their peers. Second, there is significantly more convergence near the mean among indexing states; the difference between the lowest and highest tuition rates is less than in any other group of states. While peer group indexing is sometimes portrayed as a means to increase resource needs for faculty salaries or other areas, in the case of tuition indexing this methodology appears to result in maintaining tuition levels below national averages.

The remaining states—twelve with respect to research universities, ten with respect to state colleges and universities, and eight with respect to community colleges—have no guiding philosophy or approach for setting tuition at the state level, with the rates set in accordance with institution-level policies or budgetary needs. This group of states with more institutional autonomy in setting tuition includes both large and small states, states with a dominant institution as well as those with many competing institutions, and some with tuition rates below the national average as well as some above. No western states are included in this group. As indicated in Table 2-2, the average tuition in these states tends to be somewhat higher than in the other categories, without great extremes in either low tuition or high tuition.

Authority to Set Tuition

Table 2-3 summarizes the number and types of governmental bodies that exercise authority in setting public institution tuition. Legal authority to set tuition rates is generally vested in the institutional governing board, or with a statewide or multi-institutional governing board in states where these structures govern the indivudual institutions. In most states, however, multiple agencies or authorities play some direct role in tuition-setting decisions. If indirect influences are included, these overlapping roles are even more complex.

While it is rare for a state coordinating board or state legislature to exercise legal authority in tuition decisions, often these bodies play a significant role in these decisions.

In Minnesota, for example, a "legislative intent" tuition-level is established in the appropriations process, but the separate system governing-boards set rates and control the tuition revenues.

In Wisconsin, the State Board of Regents exercises the legal authority to set tuition rates for each of the categories of students in all public universities, including the two-year university centers. The state legislature, however, has the authority to establish the tuition appropriation spending levels. Some minor shifts are possible between categories (e.g., between resident and non-resident rates) at the discretion of the individual board; however, the legisla-

Table 2-3

Roles and Authority to Set Tuition

Organization with Direct Role or Authority	Public Research Universities	State Colleges and Universities	Community Colleges
State legislature	11	11	12
State coordinating board	9	9	10
Statewide governing board	18	17	11
Multi-institution governing boards	18	18	12
Single institution or local district board	12	16	24

Note: Columns total more than 50 since multiple agencies are involved in some states.

ture effectively influences the rate-setting decisions through the *appropriations* authority.

In Illinois, tuition rates are determined annually by one of several multi-institution governing boards, under policy guidelines established by the state coordinating board. The Illinois legislature enters this decision-making process in that all tuition revenues as well as state general fund support must be appropriated prior to expenditure. This legislative role indirectly limits the legal authority and discretion of the governing boards to raise tuition, since it would do little good to raise tuition revenues that could not be spent by the institutions.

In other states, New York for example, tuition rates are proposed as part of the governor's executive budget, and then must be approved through the legislative appropriations process as well as adopted by the governing boards. The highest degree of autonomy from these overlapping legislative and executive roles occurs in those states with separate individual governing boards *and* where tuition revenues are locally held by the institution. But even in these cases (and both conditions exist simultaneously in a relatively small proportion of states) the degree of autonomous tuition-setting authority is often limited by the indirect influence of other actors.

For community colleges, involvement in tuition-setting decisions takes different patterns. Local district boards set community college tuition in approximately half the states (twenty-four); tuition is set by a statewide governing board (in most cases governing four-year as well as two-year institutions) in eleven states. Legislative roles are as frequent with respect to community colleges as four-year institutions (in twelve states), and coordinating boards also play a direct role in ten states.

This dispersion of legal authority and indirect roles across several agencies, actors, and governing bodies in most, if not all, states, has several potential consequences. When no single agency takes sole responsibility or can be held solely accountable for tuition decisions, the points of access to influence tuition decisions by various constituencies are greatly expanded. This, in turn, implies the potential for extended conflict over tuition policies and decisions. Often there is no single point to focus these conflicting interests except in the legislature, where they often become increasingly politicized. Under these circumstances, discrepancies between the underlying philosophy or guidelines and the actual rate can be expected, as the tuition decisions reflect the various interest groups rather than the policy goals.

Economic and Cost Factors Used in Setting Tuition

Because of the competing philosophies and multiple actors involved in tuition policy, states and institutions have devised formal and informal decision guidelines to use in the annual determination of tuition rates. This is often done by linking rates to external economic variables or internal cost factors; that is, the rates or increases are "indexed" to these external factors.

Some states have been relatively successful in applying these technical, formula-like guidelines to tuition decisions. Others have used them in a less formal manner, or have had to moderate or set them aside in response to compelling financial needs or political considerations.

The most frequently used economic and cost factors in making year-to-year tuition decisions are outlined in Table 2-4. In some cases, tuition rates are directly indexed to these factors; more commonly, they are indirectly taken into account in determining the amount of tuition increases.

Tuition increases are indexed to an indicator of more general price increases or inflation in five states—in two cases linked to the Consumer Price Index (CPI) and in three cases the Higher Education Price Index. (HEPI is an index that reflects the major cost components faced by institutions.) Many more states indirectly take these price indices into account—twenty-

three states use the CPI and seventeen use HEPI. Even when indexed, however, these may not be the only factors taken into account, or may not directly determine the tuition increase. In Iowa, for example, the Board of Regents policy states that resident undergraduate tuition may not increase more than the increase in HEPI, but the board reserves the right to make some additional rate adjustment if other revenue sources are not sufficient to maintain program quality.

Some indicator of income growth in the state is used by twenty-one states in setting public institution tuition.

The most direct linkage is in Kentucky where tuition rates are set at a percentage of the state per capita personal income. Peer institutions approved by the Kentucky Council on Higher Education as points of reference are used to establish differential tuition levels appropriate to the type and level of institution.

Half the states (twenty-five) indicate that personal income growth is not directly or indirectly taken into account, although in many of these cases income growth affects state revenue growth which, in turn, is likely to influence state appropriations for higher education and the need for tuition revenues.

Some linkage to the cost of providing higher education or to the instructional expenditures per student are more common mechanisms for relating tuition to other factors. Thirty-seven states use this method, of which ten relate total cost of education to tuition levels using a direct or indexed relationship and an additional twenty-seven states take cost of education into account more indirectly. Particularly in these cases, the cost of education linkage may be more in the nature of decision guidelines, which may or may not be accurately reflected in actual rates. In any case, the relationship between tuition and total cost of education involves many definitional and methodological questions that states and institutions have dealt with in different ways, as addressed in a following section.

Peer group comparisons are used for setting tuition rates in a direct manner in six states, and indirectly in an additional thirty-two states. In some instances, this involves a formalized approach to comparative market pricing, in which tuition is pegged to the average of a comparable group of institutions. In other instances, tuition

Table 2-4

Economic and Cost Factors Used in Setting Tuition

Factor	Number of States		
	Indexed	Indirect	No Explicit or Implicit Recognition
Consumer Price Index (CPI)	2	23	19
Higher Education Price Index (HEPI)	3	17	26
State personal income or disposal income	1	20	25
Cost of education or instructional costs	10	27	10
Peer group inter-institutional comparisons	6	32	9
State general fund appropriations for higher education	8	31	9

Note: Typically, more than one economic or cost factor is taken into account in setting tuition levels, particularly when the relationship is indirect.

rates or revenues are one component of a complex revenue and expenditure model used as a formula to estimate funding needs and allocate resources across multiple institutions. There are probably few, if any, instances where some reading of tuition levels at other institutions, both similar and different types of institutions, are not to some degree taken into account in setting tuition charges.

All other factors aside, the most pervasive external influence on tuition rates at public institutions is the level of state general-fund support. Eight states indicate that tuition rates are linked through policy to the level of overall state support; an additional thirty-one states indicate some strong, indirect relationship between state general appropriations and tuition rates.

The influences and effects often go beyond even the policy guidelines. In states that have a policy for tuition to be a percentage of per-student state support, there is often slippage of this relationship on both the upside and the downside. When state general-fund support goes up, tuitions tend to rise more slowly unless there is demonstrated need for this additional revenue. Despite policy guidelines to the contrary, when state general-fund support decreases or does meet the perceived financial needs, there is strong pressure for tuition to increase rather than decrease in tandem with state approprations. This linkage, in short, is difficult to maintain when the underlying financial conditions are not stable.

While some states peg tuition to a single external index, it is much more common to use a combination of external factors in the tuition-setting process. Typically, the governing board, system head or institutional president will consider an array of economic and cost factors, including price indices, state income growth, cost of instruction, peer group comparisons, and other market factors, and, in particular, the expected levels of state general-fund support in setting tuition rates. Generally these statistics are updated annually in preparation for the annual tuition decisions. The other factor likely to be considered is the level of financial aid available to students, as discussed in a subsequent section.

Policies that Relate Tuition to the Cost of Education

The Carnegie Commission reports of the early 1970s recommended that tuition at public institutions be determined as a proportion of the total costs of the education provided to students. This principle of proportional cost-sharing between the student and state funding reflected the existing practice in a small number of states and institutions, and encouraged many more to incorporate it into their tuition policies or guidelines. Despite its widespread use, however, there is still little consistency in how this principle of tuition as a proportion of costs is defined in practice, and considerable variation in the proportions to be borne by students and state funds.

The relationship of tuition to educational costs involves some measure of student charges as the numerator and a calculation of the total cost of providing education as the denominator. How this numerator and denominator are defined in different states reflects some of the technical complexity of higher education financial reporting as well as some of the competing interests involved in tuition-setting.

The first Carnegie Commission report on tuition policy was taken to task in the early 1970s for using total tuition revenues as the numerator. Tuition and fee revenues (a standard category of revenues that is relatively easy for institutions to report) has the disadvantage, however, of being affected by different proportions of resident, non-resident, and graduate students at varying tuition rates at different institutions.

It also does not incorporate any direct calculation of the value of tuition waivers and student financial aid—types of foregone tuition income or offsetting subsidies that have been even more important since the early 1970s. As a result, reported tuition revenues reflect varying institutional characteristics and no direct statistical relation-

ship to actual tuition charges—the price to students on which the cost-sharing principle is generally understood to be based.

The denominator, which is intended to reflect the total cost of the education received by students, is most readily measured by the standard reporting category of "education and general" expenditures.

The first Carnegie report on tuition policy and financing used this definition and was severely taken to task for including highly variable, non-education-related research expenditures.

In a move to accommodate public research universities by lowering the gap between current tuition revenues and the recommended ratio to education costs, the follow-up 1974 Carnegie report removed a proportion of research expenditures from the calculation. But the amount of departmental and externally-funded research that should appropriately be included in the cost of education is a highly complex accounting question that is specific to institutions and departments within institutions.

An alternative to the category of total or modified "education and general" expenditures is to use the standard subcategory of "instructional" expenditures. This has the advantage of excluding separately-budgeted research, public service, and scholarship and fellowship expenditures, but is narrowly defined to also exclude any proportion of libraries, central administrative services, operation of the physical facilities, and other expenditures that support the instructional activities.

Nevertheless, direct instructional costs are, intuitively, closer to what is normally understood as the cost of education, and many states and institutions have attempted to allocate other education-related costs into the category of instructional expenditures rather than use the more inclusive "education and general" expenditures category.

These definitional issues have remained complex and unresolved in many states. For example, an effort by the California Postsecondary Education Commission to address a seemingly simple legislative request to identify expenditures for university instructional purposes led to a multi-month, inter-segment effort that resulted in four measures of instructional expenditures, each with some statistical validity and inherent meaning, different policy or financial uses, and strong institutional defenders.

Since the mid-1970s, methods to calculate total education costs and compare these to student charges have become even more complex and controversial. In part, these controversies reflect the additional expansion and complexity of public higher education, and of pricing policies intended to meet many diverse needs. They also reflect the quasi-government status and budgeting practices of much of public higher education, one result of which is that capital expenditures, employee benefits, and other major expenditures are handled in different ways by states and institutions.

As a result of these factors, when states are asked, "What proportion of the costs of undergraduate education are met by tuition?" many different answers are provided. Fewer than half the states appear to use the standard categories of "tuition and fees" revenue and "education and general" (E&G) expenditures defined in conventional financial reporting guidelines (such as the Higher Education Finance Manual) and used by all institutions for voluntary reporting on federal surveys (specifically, the Integrated Postsecondary Education Data System Finance Survey—IPEDS).

Several states modify the numerator (tuition revenues) to adjust for tuition waivers or student aid, or to estimate the proportion of these revenues derived from resident undergraduate tuition, which is commonly the primary interest. When the denominator focuses on per student instructional costs (as in the case of the California study cited above) the logical numerator is the full-time tuition rate.

Similarly, less than half the states report standard E&G expenditures as the measure of cost. Most either modify this in some way, define and calculate a narrower category of

instructional costs, or simply do not collect and use E&G expenditures as a valid or meaningful statistic.

In short, despite the existence of standard definitions, there is no common or accepted metric for comparing student costs to total education costs because of disagreement over what these definitions do and should measure.

Given the differences in definitions and methodologies across states, it is not surprising that the reported ratios between student charges and total costs differ greatly and are statistically comparable in only a small number of cases. The reported ratios of tuition to total costs vary from less than 15 percent to more than 60 percent for four-year public institutions, and from less than 10 percent to 80 percent for public two-year institutions.

Those states that consider these to be exact and reliable statistics often use state-specific definitions. Others consider these to be, at best, "very rough estimates."

Moreover, there are few apparent patterns in the data that might yield meaningful observations, with the exception that community college tuition-to-cost ratios are generally lower than the ratios for research universities and for state colleges and comprehensive universities. For four-year institutions, the ratios cluster in the 30 percent to 50 percent range, and for two-year institutions in the 15 percent to 30 percent range.

In sum, state policies generally attempt to take the total cost of education into account in setting tuition rates, but do this in very inconsistent ways. There are wide differences across states in defining what should be included as costs and how these are measured, and great variations in the reported ratios that are attributable to both definitional and policy differences. There are also inconsistencies within individual states between what, according to policy, the ratio should be, and what according to the available data the ratio actually is.

These inconsistencies are becoming even more apparent as financial pressures push tuition up, and as students, policy makers, and the public become more concerned about costs.

There are wide differences across states in defining what should be included as costs and how these are measured, and great variations in the reported ratios that are attributable to both definitional and policy differences. . . . These inconsistencies are becoming even more apparent as financial pressures push tuition up, and as students, policy makers, and the public become more concerned about costs.

3. Tuition Differentials, Waivers, and Student Financial Aid

The substantial increases in tuition rates and other student charges during recent years contributed to greater interest in tuition differentials, waivers, and the financial assistance available to help offset tuition charges.

Decisions about eligibility or the amount of assistance provided to individual students are generally made at the campus level. Increasingly, however, state policies have been used to set guidelines for these decisions, by establishing the eligibility criteria, limiting the total amount of assistance or waivers to be provided, or determining the amount of assistance through standardized formulas.

This section describes these state policy guidelines and constraints: first, with respect to differential tuition policies; second, with respect to different types of tuition waivers or other benefits; and, third, in conjunction with student financial aid policies.

Existing state guidelines for setting non-resident tuition vary considerably, resulting in tuition rates for students attending public institutions out of their home state that range even more widely than state-resident rates. Many comparatively low-tuition states charge non-residents double the resident rate, while moderate or high-tuition states tend to charge non-residents three or more times the resident rate. Table 3-1 provides summary national statistics by sector.

The most common practice is to establish non-resident tuition at a level equivalent to some calculated "full" cost of the education, or some proportion of full cost substantially higher than that paid by state-resident students.

This full-cost guideline is currently the basis for non-resident tuition in at least fifteen states, although in practice this principle of having non-resident students pay that proportion of costs met from tax revenues for resident students is defined and calculated in different ways.

About half of these states use some state-defined categories of direct instructional expenditures, which may or may not include some proportion of capital expenditures, faculty and staff nonsalary benefits, instruction-related research, and other types of separable expenditure categories. Other states employ the standard defini-

Table 3-1
Comparison of Resident and Non-Resident Average Tuition Rates
1992–93

	Resident	Non-Resident
Public Research Universities	2,627	7,323
State Colleges and Comprehensive Universities	2,123	5,365
Community Colleges	1,152	3,298

Source: Washington Higher Education Coordinating Board data set. See Appendix A for additional information.

Tuition Policies for Non-Residents

Higher tuition rates for students who are not residents of the state is the most common differential made in public institution tuition rates. In thirty-four states, this differentiation is written into state guidelines; in the remaining sixteen states, non-resident differentials are determined by institutions or governing boards without reference to overall state guidelines.

tion for "education and general" expenditures used for financial reporting, although specific expenditure subcategories may be removed from this as well. A smaller number of states key non-resident tuition directly to the level of per-student appropriations or formula-driven support provided to state residents.

The proportion of total education costs borne by non-resident students varies from a low of 50 percent to a high of more than 100 percent. The lower percentage is justified by the assertion that non-resident students contribute to the state economy as well as to the student diversity at the institution; higher percentages are intended to recover additional costs to the state not included in the calculated instructional expenditures.

Unquestionably, this principle of full-cost tuition for non-resident students is receiving increased attention at the state level as a means to enhance resources and reduce the need for state support. This practice varies in relation to how attractive the state's public institutions are to out-of-state students, since the revenue-generating potential of such a policy is decreased by any resulting enrollment losses.

. . . this principle of full-cost tuition for non-resident students is receiving increased attention at the state level as a means to enhance resources and reduce the need for state support.

At least ten states establish non-resident tuition as a multiple of state-resident tuition, rather than attempting to calculate full cost directly. These multiples vary from two times the tuition rate to three or more times the in-state tuition rate. These relational guidelines are used in states that link resident tuition to a proportion of costs (thus, indirectly linking non-resident tuition to full cost), and in states that set tuition on a non-cost basis, such as peer comparisons.

The remaining states use some other type of policy guidelines for establishing non-resident tuition or allow these policies and rate decisions to be made entirely at the institution level. This includes those states in which "tuition" technically applies only to out-of-state students, and states in which the legislature plays a fairly direct influence on student charges through the appropriations process.

As non-resident tuition charges have become more important as a source of revenue, the state guidelines and policies governing these decisions also have become more subject to political attention.

Thirty-three states also participate in bilateral state agreements or multi-state regional programs that provide reduced tuition charges for participating students.

Bilateral agreements generally involve waiving additional non-resident tuition charges within multi-state metropolitan areas, or are applicable to non-resident students attending institutions that are contiguous to state borders. Often these agreements are based on reciprocal relationships with respect to student flow or state costs.

Regional and multi-state programs, primarily those sponsored by three regional compacts,[5] are generally limited to specific programs, institutions, or student levels. Graduate and professional programs frequently involve some state fees to compensate partially for reduced tuition revenues and additional costs.

At the undergraduate level, additional state funds are not generally involved and tuition is reduced to the resident rate or 150 percent of the resident rate. These programs were established to reduce program duplication and increase student access, but the most commonly calculated cost savings and other benefits relate only to student costs,

not to the costs in terms of state support necessary to provide these reduced tuition benefits.

As non-resident tuition charges have become more important as a source of revenue, the state guidelines and policies governing these decisions also have become more subject to political attention. In conjunction with raising non-resident rates, for example, many states are being forced to address inconsistencies and inequities in the definition of state residency status.

While the intent may be to force students legally dependent on family in another state to pay out-of-state rates for the duration of their education, this principle is often difficult to enforce consistently. While states may deny certain benefits to individuals, they cannot deny residency status in ways that are not defensible in the courts.

Increasingly, in some cases, it appears that students routinely establish legal domicile in a state in order to gain residency status for tuition purposes. As a practical matter this is difficult to distinguish from other reasons for establishing independence from parental support, and it is potentially open to legal challenges.

It is not difficult to find great discrepancies and apparent inequities in how residency status is defined and determined not just across states, but across individual students within states and institutions. Higher non-resident tuition charges obviously add to the "high stakes" nature of this issue from both the state and student perspectives.

Even when residency requirements are adequately defined and enforced, political repercussions can occur when the proportion of out-of-state students becomes too large. In the fall of 1992, for example, the University of Colorado at Boulder, which depends upon non-resident tuition for a substantial component of its revenues, admitted more out-of-state than in-state students in its entering class.

This stimulated public controversy and state legislative interest. The university publicly committed to limiting non-resident students in the future, but not soon enough to forestall legislation to enforce just such a provision. It became clear in Colorado that there are political risks when public higher education institutions become too dependent upon non-resident tuition revenues. "Toughening up" on non-resident students is currently a popular strategy for states and for many institutions, although there are limits to how far these measures can and should be pushed.

Other Types of Differential Tuition Rates

In addition to non-resident undergraduate tuition differentials, state policies define guidelines for tuition rates applicable to several other categories of students or programs. (See Table 3-2.)

"Toughening up" on non-resident students is currently a popular strategy for states and many institutions, although there are limits to how far these measures can and should be pushed.

Half of the states define guidelines or policies for setting graduate-level and graduate-professional tuition rates. Generally, these relate tuition to the total per-student cost of the programs, based on the recognition that these costs differ from the undergraduate level costs and vary significantly across graduate programs.

With very few exceptions (for example, separately organized and budgeted professional degree programs), states do not have sufficiently detailed financial reporting systems to actually identify program-specific

costs, or even to separate out the costs of graduate level programs. (Undergraduate and graduate programs are typically provided by the same department, for example, and share some of the same faculty and physical facilities.)

As a result, the differential cost principle is often very loosely applied, with graduate tuition determined on the basis of average cost for all students (undergraduate as well as graduate) with some incidental costs added on that are applicable to graduate level programs.

In recognition of this cost-accounting difficulty, other states, either in policy or as a matter of practice, simply add an increment to the undergraduate rate, so that graduate tuition is 125 percent or 150 percent of undergraduate tuition. Although medicine, veterinary medicine, and other professional degree programs typically have higher tuition charges, only in professional fields such as law and graduate-level business administration do tuition rates approach the actual per student costs of the program.

There also is considerable discretion at the institution and department levels in determining resident and non-resident student status for graduate programs. The result of these factors is substantial discrepancy in policy and actual rates for graduate-level tuition.

Nine states indicate that they have separate tuition rates for lower division/upper division undergraduate programs, for specialized high-cost programs, or some other program differentiation, although in some cases these are the same guidelines as used to determine undergraduate, non-resident, and graduate-level tuitions.

The technical complexity involved in establishing differentiated tuition rates for high-cost or high-demand programs appears to inhibit the use of this pricing strategy, at least at the level of state policy.

There also appears to be a general concern that large differentials could inhibit student choice and affect institutional missions. One type of differential that is receiving more attention at the level of state policy involves greater differentiation in tuition rates across public institutions and geographic regions. Traditionally, these institutional differentials have been related largely to structural hierarchies across multi-institutional systems, such as the three tiers of public institutions in California, each with a separate governance system and tuition policies. In most states, the differentials in tuition across institutions have been sector-specific or level-specific, rather than institutional-specific.

Increasing the tuition differentials across individual public institutions is under study in several states. In Maine, for example, the differentials in tuition across institutions have traditionally been small and have not reflected either the extent of variation in the educational services provided or the uneven distribution of income

Table 3-2

Tuition Categories and Differentials

	Number of States	
	State Guidelines	No State Guidelines
Non-resident tuition rates	34	16
Rates for graduate/professional students	25	25
Level/type of program	9	41
Policies with respect to non-instructional fees	33	17
Special programs	11	39

across the state. Motivated by the constraints in state general fund support, in 1993 the Maine University System established larger, institution-specific tuition differentials to reflect program characteristics and regional economic factors.

Well over half of the states (thirty-three) indicate some state-level policies with respect to non-instructional student fees and other charges. Generally, these additional student charges are determined at the institution level within fairly flexible state guidelines.

As these non-tuition charges have increased, however, states have established additional criteria or fee limitations, such as administrative review of the financial need, a process for student comment, financial accountability for all expenditures from student fees, or limited total fees to a proportion (typically 25 percent to 35 percent) of tuition charges.

The most common guideline for fees to support auxiliary enterprises (e.g., student unions, recreational facilities) is that they be adequate to make the enterprise self-supporting. Eleven states also have policies or guidelines for establishing tuition and other charges for special education and training programs, such as those offered at workplace locations, under contract with private industry, or in conjunction with professional development or certification.

Tuition Waivers and Assistance Plans

States provide or require public institutions to grant tuition waivers for many different categories of beneficiaries.

As indicated on Table 3-3, more than half the states provide tuition waivers under state policy or through institutional discretion to dependents of police officers or firefighters who lost their lives or were disabled in the line of duty; more than half also provide some type of tuition waivers to military service veterans or National Guard members either under state policy or through institutional action; and more than three-fourths (thirty-nine) states provide some tuition waiver benefits to senior citizens.

Some of these tuition-waiver programs for special categories of individuals are supported through special state appropriations; others receive partial or no direct appropriations to offset costs.

Table 3-3

Types of Tuition Waivers

	Number of States		
	State Statutes or Policies	**Institutional Discretion/ Other**	**No**
Dependents of deceased police officers and firefighters	25	3	20
Veterans, National Guard	21	6	21
Senior citizens	22	17	10
Institutional faculty/staff	19	26	4
Dependents of faculty/staff	11	23	15
Graduate teaching assistants	17	29	2
Students who qualify for need-based aid	13	18	17
Students who qualify for merit-based aid (academic scholarships)	12	22	15
Student athletes	8	27	14
State employees or dependents	8	1	38
Other types of tuition waivers	17	12	--

Note: Number of responses varies by question.

Virginia offers an example of how these tuition waiver programs operate in many states. State policy requires public institutions to grant tuition waivers to specific groups of individuals, including dependents of policy officers, firefighters and other public servants who died exercising their professional duties, senior citizens, and military personnel and their dependents stationed in Virginia.

The state provides no additional funds for the first two categories, and institutions must forego these tuition revenues and absorb the costs associated with these enrollments. For military personnel and their dependents, the state has in the past provided funds to make up the difference between in-state and non-resident tuition. However, due to severe budget constraints, even this funding was removed for 1993–94, and the institutions are required to absorb the costs of many more state-mandated tuition waivers.

All except four or five states provide some tuition waiver benefits to faculty and institutional staff—nineteen under state policies and twenty-six as a result of institutional policies. Frequently, these benefits are limited to one course per term, or are controlled by collective bargaining agreements.

Thirty-four states also provide tuition benefits to dependents of public institution faculty and staff—eleven through state policy and twenty-three through institutional action.

All but two states reported some policy or special provisions for tuition waivers for graduate teaching assistants. Students who qualify for need-based student aid or state academic scholarships receive tuition waivers in twelve and thirteen states, respectively, under state policies and in eighteen to twenty-two states on the basis of institutional policies or discretion.

A smaller number of states (eight) provide state-level waivers for student athletes, and in many more (twenty-seven) athletic waivers are provided through institutional discretion.

State employees or dependents are eligible for tuition waivers under state policies in eight states (frequently limited to 50 percent or some other proportion of normal tuition, or provided only on a space-available basis).

Tuition Prepayment/College Savings Plans

As another strategy to limit the impact of higher tuition, many states have established —or at least considered—various types of tuition prepayment or savings plans.

Using a model developed by several private institutions, state tuition prepayment plans allow individuals to pay into special state accounts or trust funds over a period of years an amount that would prepay or guarantee the payment of public-institution tuition at a later date. When public concern is high because of rapid increases in tuition, these plans appear very attractive. But the concept of prepayment is even more financially problematic for public institutions than for privates, where it was never widely adopted.

> *. . . ten states or major public institutions have enacted some type of limited prepayment program, although three or more of these programs have already been terminated and others were never fully implemented.*

Prepayment does not guarantee future admission of a student to an institution, although it may appear to provide such assurances. Furthermore, a state or the program administrators can neither predict the cost of tuition in future years nor commit future state governments to providing the necessary resources.

Despite these drawbacks, ten states or major public institutions have enacted some type of limited, tuition prepayment program, although three or more of these programs have already been terminated and others were never fully implemented.

As indicated on Table 3-4, programs for tuition savings, work/study and loan forgiveness are more common at the state level. Fourteen states currently have some type of tuition savings plan through which parents and others are encouraged, generally through state tax reductions, to save for future tuition and associated college costs; three states have already, however, terminated savings programs and others have not been fully implemented.

entering certain fields or serving targeted state needs. The most common of these are nursing, teaching in inner-city or rural areas, primary-care physicians and minority physicians to serve particular areas, and other social service professions.

In addition to the need-based financial aid programs discussed in the following section, many states sponsor merit-based scholarships or early intervention programs that offer tuition waivers at public institutions.

Louisiana, North Dakota, Virginia, Wisconsin and Wyoming, among others, provide tuition waivers to their top high-school graduates to attend public institutions in the state.

Table 3-4
Tuition Prepayment, College Savings and Other Assistance Options

	Number of States			
	Under Consideration	Implemented	Terminated	No
Tuition prepayment plans	6	7	3	34
Tuition savings plans	4	14	3	28
State-based work/study programs	2	18	0	27
Community/public service with some tuition benefits	1	3	2	44
Loan forgiveness programs for targeted fields	5	35	3	7
Merit-based scholarships	1	31	1	14
Taylor plans/Eugene Lang programs (waivers guaranteed at early age on condition of successful high school completion)	6	14	0	30

Note: Number of responses varies by question

Eighteen states have some type of work/study program sponsored at the state level, and three have established community or public-service programs that provide tuition benefits.

Programs that repay or forgive student loans in return for post-graduation service in specific public service fields are currently sponsored by thirty-five states. These programs have been established over the years to augment the number of professionals

Other approaches among the thirty-one states with some type of merit-based scholarships include programs supported through direct state appropriations that provide grants to offset tuition costs for top high school graduates enrolling in either public or private institutions in the state.

Taylor Plans (which originated in Louisiana) and programs based on the Eugene Lang "early commitment" model have been established in fourteen states,

although many of these are supported by private sources in addition to state funds and may be administered by agencies outside of state government.

Examples of these special programs targeting "at-risk" youth or specific population groups are numerous and have grown in number and size in the last decade.

There also are more traditional programs that use tuition waivers as a benefit. In Illinois, for example, state statutes provide each member of the state legislature with two tuition waivers each year to be awarded and used at the discretion of the member at an Illinois public institution.

As public policy, tuition tends to be viewed primarily in terms of the charges that most students pay and the revenues that institutions generate from these charges. As discussed in this section, tuition policies serve a multitude of other, subsidiary purposes and needs as well, including direct benefits to some individuals and groups, incentive and rewards for achieving high grades and pursuing postsecondary education for others, and financial mechanisms that may help to meet specific workforce or social needs in the state.

Tuition policy is not, necessarily, the most efficient and effective approach to these specific financial needs. Using tuition policy as a social benefit is, however, part of the nature and the process of tuition decisions, which must be taken into account in the analysis and redesign of these policies.

Tuition Policy and Financial Aid

States, some in conjunction with their public institutions, use a multitude of programs and approaches for the purpose of providing need-based financial assistance to postsecondary students.

Each state or agency with sizable financial-aid programs normally provides a descriptive handbook for public use, as well as a more detailed annual report. Institutions typically provide these materials also. A detailed analysis of these myriad programs would be difficult, and no comprehensive analysis and program-by-program evaluation of state-funded student financial-aid initiatives, how these compare across states, and how they relate to federal and institutional financial aid programs is available. The existing literature, while extensive, generally focuses on particular programs or states, or analyses of how the system works as a whole to provide financial assistance.

> *As public policy, tuition tends to be viewed primarily in terms of the charges that most students pay . . . [but]tuition policies serve a multitude of other, subsidiary purposes and needs as well.*

This section attempts the more limited task of describing the relationship between tuition policies and student financial aid at the state level.

Given the importance of this linkage in maintaining access and affordability in higher education, even a cursory outline of the different ways that tuition policy and tuition charges relate to support for need-based financial aid may be helpful. This is particularly true as more and more states and public institutions move toward a high tuition/high financial-aid strategy—a strategy that presumes that this close linkage can be maintained over time.

Simply, a high-tuition/high-aid strategy (or any other tuition strategy that attempts to maintain access through need-based financial aid) requires extensive policy planning and financial coordination between tuition setting, on the one hand, and financial-aid planning on the other.

This reflects the fact that, other factors remaining equal, higher tuitions will increase the demand for financial-aid resources in order to maintain equivalent financial access to higher education. Approximately one-half of the states have policies or procedures in place that attempt

to establish some appropriate relationship between tuition decisions and the provision of financial aid.

About fifteen of these have large, state-funded financial-aid programs, which, to the extent resources are available, attempt to offset the effects of higher tuition on financially-needy students. The remaining ten or so do not have large state-funded programs, but instead have established guidelines requiring institutions to set aside a proportion of tuition revenue or general state support to use for student financial aid.

The remaining half of the states either operate through dual roles in coordinating tuition with financial aid (approximately fifteen states), or leave both tuition and financial aid decisions entirely in the hands of institutions with no attempt, at the state level at least, to coordinate these decisions.

Approximately one-half of the states have policies or procedures in place that attempt to establish some appropriate relationship between tuition decisions and the provision of financial aid.

Even among the states with varying degrees of tuition/financial-aid coordination, some degree of coordination at the level of policy does not necessarily mean coordination in practice, or that the estimated student assistance needs generated by tuition increases are in fact made available.

In Illinois, New York, Rhode Island, Vermont, and Virginia, the large state-funded and centrally-administered student financial-aid programs attempt as a matter of policy to compensate for tuition increases with additional funding for student assistance.

But only in New York is the state student-aid program established as a need-based entitlement, which, at least in theory, assures that state appropriations are adequate to meet the calculated need, including tuition increases.

In Illinois, a rough "rule-of-thumb" is used under which, in the past, 20 percent of tuition revenues generated from any rate increases are allocated to the state financial -aid program. When tuition increased more steeply in recent years, this percentage allocation was also increased to the extent possible, although not to the degree of meeting the entire calculated financial need.

In Virginia, the state discretionary aid program explicitly takes tuition levels into account in the need analysis system, which also factors in the aid available from the institution. The state program provides grants to meet some of the remaining need, but currently state appropriations cover only about 45 percent of this amount.

In Rhode Island, the state financial-aid program operates in a similar fashion, but is able to provide only 20 percent to 25 percent of the calculated need-based assistance.

Similarly in Vermont, with the highest public-tuition institutions in the country, there is a growing awareness that state and federal support for student assistance is falling farther behind the estimated program needs. Budgetary pressures leading to the underfunding of student financial-aid programs appear to be fairly common in other states as well.

In another group of states, including Arizona, North Carolina, Texas, and Washington, higher education coordinating or multi-institution governing boards define guidelines within which resources are provided for student financial assistance, but control over the actual resources and administration of the programs resides with individual institutions.

Under Arizona Board of Regents policies, the three public universities retain from tuition collections an amount equal to 4.8 percent of total "unmet student financial need," defined as the cost of attendance minus expected family contributions and other sources of aid. In addition, a small

portion of tuition ($12 per student) is matched with state funds, half of which is applied to current financial aid expenditures and half of which is placed in a Financial Aid Trust Fund. Interest earnings from this account also may be used to meet financial aid expenditures.

In Texas, senior public institutions must set aside 15 percent of tuition income for need-based aid to students; community colleges set aside 6 percent. Although the state does fund and operate its own student financial-aid program, this tuition set-aside provides the major source of non-federal student aid, and allows flexibility to the institutions in the actual programs.

In Texas, senior public institutions must set aside 15 percent of tuition income for need-based aid to students. . . .

In the state of Washington, the intent of the legislature is to increase financial aid support in an amount equal to at least 24 percent of any projected increase in tuition revenues, often augmented with additional amounts. Other states are moving to establish such guidelines.

In the North Carolina public university system, student assistance has traditionally been provided by the individual institution from a variety of revenue sources. In the 1991–93 biennium, the state legislature specified, for the first time in recent memory, that a portion of revenue derived from tuition increases be budgeted for student financial assistance.

Parallel programs for student assistance at the state and institution levels represent the third common pattern. In Florida, for example, the state supports a fairly sizable statewide need-based assistance program, Florida Student Assistance Grants. The public universities, under Florida Board of Regents policies, also assess a fee equal to 5 percent of tuition to support student-aid programs, at least half of which must be need-based. A portion of the state lottery proceeds also is earmarked for financial aid at the institution level, meaning that there are several different state and institutional sources and programs serving this purpose.

The Minnesota State Grant Program, which is comparatively large and provides grants to students in private as well as public institutions in the state, calculates the grant on actual tuition and fees at public institutions. Even at private institutions, the tuition component is capped at the level of institutional expenditures at similar public institutions, which is used in combination with a standard living allowance to calculate a "price of attendance." One implication of this system, called the Design for Shared Responsibility, is that public institution tuition rates have an indirect impact on the amount of student aid received at private as well as public institutions.

More typical than the Minnesota plan, however, is the less systematic relationship that exists in many states. In Delaware, for example, some financial aid is provided at the state level and some at the institutional level using state, institutional, and federal funds. In part, because of these multiple programs, no attempt is made to establish a direct relationship between tuition levels and financial-aid funding.

In Delaware . . . no attempt is made to establish a direct relationship between tuition levels and financial aid funding. Other states . . . report that state-level financial support and policy guidelines for student financial aid are minimal.

Other states, including Kansas, Montana, South Dakota, and Utah, report that state-level financial support and policy guidelines for student financial aid are minimal. Many of these states provide little or no financial support for student assistance, and even at the institution level there is often little financial assistance available outside of the federal programs. Even in

these cases there is a connection to tuition policy in the sense that the low interest in financial aid programs is related to maintaining relatively low tuition rates as the primary means for providing access to higher education.

In sum, looking across the states, one sees not one model of the relationship between tuition policy and student financial -aid programs, but many, none of which necessarily establish a clear and direct linkage.

Linking the two interrelated policy areas is difficult to accomplish and maintain since it involves consistency in the policies and some coordination of financial planning and state support.

Policy linkages and program inter-relationships between tuition policy and financial aid that seem to work within individual states appear to defy rationality when viewed in terms of the multitude of programs and historical accommodations that have been made across all fifty states.

. . . looking across the states, one sees not one model of the relationship between tuition policy and student financial-aid programs, but many, none of which necessarily establish a clear and direct linkage.

4. Control, Use, and Growth of Tuition Revenues

To this point, we have examined components of state tuition policies that relate directly to tuition decisions and rates; namely, the underlying philosophies, indexing methods, differential categories and other factors that relate to the charges to students.

This chapter examines, in the first two sections, state policies affecting the control and use of revenues derived from tuition, both of which have a less apparent, but, nevertheless, important influence on tuition rates. Who controls tuition revenues and for what purposes these revenues can be expended often encourages or constrains increases in tuition.

The final section examines the growth in tuition as a source of revenue to support public higher education. This revenue growth clearly reflects the increases in tuition rates, as well as other factors such as larger enrollments.

Control Over Tuition Revenues

In most states, revenues derived from tuition are retained and controlled at the institution level or by multi-institution governing boards. As indicated in Table 4-1, this practice is followed in thirty-seven states with respect to research universities, state colleges and comprehensive universities, and thirty-eight states with respect to community colleges.

These states include many different forms of governance, and even when revenues are retained by the institution or board, in many of these states legislative appropriation is necessary before expenditure.

This group includes both Georgia and Ohio, the first with a single, unified governing board for all public institutions, and the second with separate governing boards for each. North Carolina is included with respect to research universities and other four-year institutions, but not for community colleges.

Wisconsin, which has a single statewide governing board with tuition-setting responsibilities similar to Georgia and North Carolina, is not included because of additional state controls over tuition revenues.

In short, the institutional-control category includes both centralized and decentralized governance structures, and states with weak and strong coordinating boards.

Table 4-1

Control and Retention of Tuition Revenues

Treatment of Tuition Revenues	Number of States		
	Public Research Universities	State Colleges & Comprehensive Universities	Community Colleges
Retained and controlled at institution level or by multi-institution governing board	37	37	38
Held in separate state tuition accounts requiring appropriation	8	8	5
Deposited in state general funds	3	3	3

Tuition revenues are held in separate state "tuition funds" in eight states with respect to research universities, state colleges, and comprehensive universities, and in five states with respect to community colleges. In all these cases, a state appropriation is required prior to expenditure, although the extent of direct control over expenditures varies. In some instances, tuition revenues in these states are treated as state-held fees deposited in accounts over which the state exercises little more than fiduciary responsibility.

> *Who controls tuition revenues and for what purposes these revenues can be expended often encourages or constrains increases in tuition.*

In three states, tuition revenues are deposited in the state general funds along with other sources of state revenue, and their return to and use by higher education can only be inferred. In these instances, state financial support for public institutions comes entirely from general funds, except for revenues generated by special student fees, which are locally held and used for specific, non-instructional purpose.

Several states have altered procedures for control of tuition in recent years. After many years of depositing tuition in state general funds, Washington established separate tuition accounts at the state level in 1992.

In Massachusetts the handling of tuition revenues has been altered several times. Authority was granted in 1988 for public institutions to retain the revenues generated from tuition increases, with base revenues continuing to be placed in state funds. In 1992, the University of Massachusetts campuses were given authority to retain 100 percent of tuition revenues, although the limited retention authority was taken away from states and community colleges. In early 1993 it was proposed that tuition retention be extended to all public institutions, but this was not approved by the 1993 legislature. As of mid-1993, depositing tuition revenues in state general funds continues to be the practice in Hawaii and South Dakota as well as Massachusetts.

In addition to institutional versus state retention and control, another distinction that needs to be made involves whether tuition revenues are treated as if they belong to the individual campus or institution, or to the multi-campus or state system.

In Alaska, for example, under Board of Regents policy, tuition revenue is allocated (and is subsequently appropriated) to the unit where the tuition and fees are earned.

In other states, such as Wisconsin, the revenue retention policies and allocation practices are more parallel to the way tuition revenues are typically maintained and used by individual institutions. That is, tuition is treated as institutional revenue to be allocated across units in accordance with institutional budgetary decisions, rather than returned to the unit where the students are enrolled. This system means that the central budgeting and governing authority may redistribute tuition funds as well as other sources of revenue.

In the Oregon System of Higher Education, each institution may assume responsibility for tuition generated by non-resident undergraduates. Under this option, if non-resident tuition income is not realized, institutions may be forced to cut their own budgets. Only one of seven institutions has chosen this option for tuition retention; the others remain part of the system-pooling of tuition revenues under which funding is provided based on enrollment, irrespective of whether this is resident or non-resident.

> *In Alaska. . . tuition revenue is allocated . . . to the unit where the tuition and fees are earned. [In] Wisconsin . . . tuition . . . is allocated across units.*

Financial Reporting and Constraints on Revenue Use

Financial reporting requirements and the related controls over the use of tuition revenues also are frequently divided

between public institutions and the state. In many instances, state accounting procedures require the same auditing, control, and financial accountability procedures applied to all other public funds. Frequently, multiple agencies may be involved including the state treasurer, the state auditor or comptroller, legislative budget and appropriations committees, and the executive budget bureau, as well as the governing and/or coordinating boards for higher education.

This adds to reporting burdens and often limits the financial autonomy of institutions in using the tuition revenues. As the foregoing example from Oregon illustrates, however, institutions may be willing to give up some financial autonomy in return for the additional financial security that the state can provide, at least in good financial times.

In many states, tuition revenues are treated in the budgetary or appropriations process as an "offset" for direct state support. It is also the case that public institutions exercise different types of financial planning and managerial responsibility over tuition revenues than is typical of private institutions.

These factors mean, among other things, that in public institutions, managerial oversight of tuition tends to focus heavily on the relationship of tuition to overall state support and state budgeting procedures. The varying procedures through which this occurs may best be illustrated with several state examples.

In Alaska, the state legislature meets on a monthly basis to review and approve non-general fund revenues for all state entities, including tuition revenues for the University of Alaska System. This means that all tuition revenues must be checked against estimates on a regular basis by the statewide and campus budget offices to ensure that appropriation levels are sufficient to provide expenditure authority to prevent revenues from lapsing due to failure to appropriate. Since under board policies in Alaska, tuition revenues are provided to the unit where generated, the campus finance offices produce financial management reports to identify and control units who are not earning sufficient revenues to sustain their desired expenditure levels.

In Arizona, Board of Regents' staff, executive budget staff, and legislative staff are all involved in the estimation and verification of tuition revenues during the budget development and appropriations process. Once the budget is passed by the legislature, the institutions report additional collections or shortfalls to the state board, although there are no additional consequences for the institutions or obligations for the state.

In Arkansas, tuition revenues are verified and compared to state policy and budgetary guidelines annually, but no retrospective adjustments are made for actual collections.

In California, tuition revenues are checked against estimates at the campus and system levels, and any necessary adjustments must be reported to the state Department of Finance. If tuition collections result in a shortfall, this deficiency must be negotiated with the governor and the legislature. In many instances, considerable time and effort is required because tuition revenues must pass through these processes, particularly if adjustments must be made during the course of the year because of small changes in enrollments.

In many instances, state accounting procedures require the same auditing, control, and financial accountability procedures applied to all other public funds. Frequently, multiple agencies may be involved . . .

In Virginia and North Carolina, tuition revenues are considered to be the first revenues to be spent by institutions, before state general-fund support can be used. If receipts are greater than estimated in North Carolina, tuition revenues would replace general-fund appropriations unless there is an approved budget revision for the institution to expend these amounts. In Virginia, institutions are generally given permission

to retain additional collections. In both cases, if actual tuition revenues fall short of estimations, institutional budgets must be cut.

> *. . . it is . . . unusual for state funds to be available to make up any shortfall in tuition revenues once the institutional budget or allocation is determined for the year.*

In states that use funding formulas directly related to enrollments, if tuition revenues go down due to lower enrollments, state funding also may be reduced to an equivalent or greater extent.

These instances where institutional budgets are, in effect, hit twice by unexpected enrollment declines are relatively few; but it is also unusual for state funds to be available to make up any shortfall in tuition revenues once the institutional budget or allocation is determined for the year. The inverse of this, however, is frequently the case: when state support is cut mid-year or mid-budget, tuition must be increased in order to meet anticipated expenditures.

Public institutions also face an array of constraints in how tuition revenues can be used. One-half of the states define specific

> *Public institutions also face. . . constraints in how tuition revenues can be used. One-half of the states define specific purposes or limitations . . .*

purposes or limitations, many of which focus on the use of tuition revenues for capital expenditures.

An extreme example is Idaho where, under the state constitution, no student charges for resident students can be used to offset instructional costs. As a result, Idaho has very high facilities fees used for capital improvements and debt service, which cannot be expended to meet general education operating costs.

Another ten to fifteen states indicate that under state statutes or policies some set proportion of tuition revenues is used to offset capital expenditures. The proportion varies from 4 percent set aside for capital repairs, to 25 percent or more of total tuition revenues committed to repayment of long-term capital debt.

An equal number of states appear to take the opposite approach, with some absolute prohibition in statute or policy against using any tuition revenues for capital expenditure purposes. These states provide for capital expenditures through state general obligation bonds or other non-tuition sources, with tuition revenues technically used only for instructional and operating costs.

> *. . . higher tuitions leading to a redistribution of institutional revenue streams from state sources to student charges may need to be accompanied by some loosening or greater flexibility in budgeting, appropriations, and the use of tuition revenues.*

A third common approach is for the state or governing board to issue revenue bonds for capital expenditures secured by a portion of tuition, special fees, or general institutional income. When the capital construction involves academic facilities, several states including Indiana and Iowa provide debt-service replacement appropriations so that there is no loss to the institutional operating budgets.

Although there are a few exceptions, most states appear to prohibit the use of tuition revenues to finance capital expenditures for non-academic facilities (such as recreation and athletic facilities), although the use of special student fees for this purpose is very common.

In sum, the control and use of tuition revenues at public institutions are subject to numerous financial reporting and accountability requirements, complex state-level budgetary procedures, and, in some instances, constraints over how the tuition revenues can be used. These factors affect the ways in which tuition is perceived as a source of institutional support and revenue.

Tuition tends to be viewed in relation to the overall position of higher education in the state, and particularly state funding. One implication of this is that higher tuitions leading to a redistribution of institutional revenue streams from state sources to student charges may need to be accompanied by some loosening or greater flexibility in budgeting, appropriations, and the use of tuition revenues.

Unless this is done, higher tuitions become more like state user fees, in which services are priced at or near cost, but the state rather than the institutions (as the providers) or the students (as customers) effectively determine the types and costs of the services provided.

Growth in Tuition Revenues

Public institution revenues derived from tuition and other education-related student charges have increased substantially in both absolute and proportional terms during the past two decades. Between 1982–83 and 1990–91, reported public institution revenues from tuition and related fees increased from $7.3 billion to $15.3 billion, a 110 percent increase.[6]

What may be most notable is that tuition remains consistently less than one-fourth of public higher education revenues in the aggregate.

Adjusting for underlying inflation and cost increases (using 1991 dollar values), the increase over eight years was 53 percent. This growth, of course, reflects changes in enrollments as well as tuition rates.

Taking into account enrollment growth as well as general cost increases (using 1990–91 dollar values computed on a full-time equivalent student basis), a recent study by Blasdell, McPherson, and Shapiro comes to the following conclusions. Between 1979 and 1989, inflation-adjusted tuition revenues per student increased 44 percent at public research universities, 43 percent at other four-year public institutions, and 37 percent at public community colleges. In contrast, state and local government appropriations per student (adjusted for inflation) increased only 10 percent at research universities, 8 percent at other four-year public institutions, and 3 percent at community colleges.[7]

These varying growth rates in the sources of revenue to public higher education are evident in the proportional shifts in revenues beginning in the mid-1970s.

As indicated in Table 4-2, the proportion of total revenues to public higher education from tuition and fees decreased slightly during the late 1970s, but increased noticeably after 1980 and particularly after 1985–86. These proportional increases occurred in all sectors of public higher education, with the public four-year, non-research institutions being the most dependent on tuition revenues.

As a percentage of total "education and general" expenditures by public institutions, tuition and fee revenues decreased similarly during the late 1970s, only to increase rather sharply in the mid-and late-1980s.

Conversely, the proportion of total revenues and E&G expenditures at public institutions derived from state governments increased steadily through the mid-1980s, and then diminished sharply in the late 1980s, according to National Center for Education Statistics data.

Still, these increases hardly seem surprising following a period of sizable and steady tuition rate increases. What may be most notable is that tuition remains consistently less than one-fourth of public higher education revenues in the aggregate.

Even in private institutions, tuition revenues remain nationally at about 40 percent of total institutional revenues. These national averages do not reveal the substantial differences across institutions and states, however, where the extent and consequences of increased dependency on tuition revenues requires more detailed examination.

Table 4-2

Tuition and Fee Revenues as Percent of Total Institutional Revenue and "Education and General" (E&G) Expenditures Public Institutions by Type, 1975-76 and 1990-91

	Tuition and Fees as Percent of Total Revenue	Tuition and Fees as Percent of Total E&G Expenditures
1975-76		
Public Research	12.1%	15.6%
Public Four-Year	17.9	21.6
Public Two-Year	15.8	17.8
1980-81		
Public Research	12.0	15.4
Public Four-Year	17.5	21.1
Public Two-Year	15.4	17.2
1985-86		
Public Research	13.1	17.0
Public Four-Year	19.3	23.0
Public Two-Year	15.3	16.7
1990-91		
Public Research	14.5	18.3 (24.9%)*
Public Four-Year	22.3	26.1 (39.4)
Public Two-Year	17.1	18.6 (45.1)

Notes: Percentages in parenthesis exclude "restricted" E&G expenditures, which is primarily specialized research expenditure. This exclusion is not available for prior years. Categories based on Carnegie Classifications: Public Research includes Research I and II; Public Four-Year includes Doctorate I, II, Comprehensive I, II and Liberal Arts I, II.
Source: National Center for Higher Education Management Systems (NCHEMS) HEGIS/IPEDS Database.

5. The Search for New Policy Frameworks

In many states, steady increases in public institution tuition are undermining the tuition philosophies and social values written into state policies, while not necessarily meeting the financial expectations of institutions.[8]

This poses a dilemma for states, institutional leaders, and the public at large. Should state tuition policies attempt to maintain a pricing philosophy, set of principles, guidelines, or other articulation of social values and objectives with respect to student charges for public higher education? This does not necessitate embodying one particular philosophy, such as the shared cost principles articulated in the Carnegie Commission reports of the early 1970s.

Philosophical or social-value components of tuition policies have taken many different forms, including "low-tuition to preserve access," "high tuition/high aid" strategies of more recent vintage, and an explicitly market-oriented pricing philosophy based on peer comparisons or student demand. All of these appear to be at risk, undercut by continued increases in tuition rates and overwhelmed by increases in the total costs of supporting higher education.

In many states, steady increases in public institution tuition are undermining the tuition philosophies and social values written into state policies . . .

Alternatively, state tuition policies might set aside any such philosophical rationale, which in many cases is beginning to look more like pretense than reality. Instead, policies could focus on more effective procedures to ensure that rates are set at levels to meet the financial needs of institutions—and, one must add, the financial limitations of state and federal funding sources. Certainly, more attention could be given to differential tuition rates across programs and institutions to reflect actual costs and perceived benefits, more fairness in rates and public subsidies across income levels consistent with goals of access and equitable participation, and better means to bring tuition decisions directly into budgetary and planning processes at all levels. Changes that contribute to the economic "efficiency" and procedural aspects of tuition could have a substantial impact on tuition rates.

A third option for state tuition policies may be to combine elements of both of these approaches. If existing tuition philosophies appear outmoded, new principles and social values need to be articulated to take their place in the public mind and in policy. If existing procedures for setting tuition are lacking in fairness and economic efficiency, these areas will also require some rethinking and new approaches, not much of which appears to be occurring either inside or outside the current policy frameworks.

Barriers and intransigence will be confronted in pursuing any of these options. One specific problem is that tuition-setting processes also tend to be decision-driven. Longer-term, more philosophical values tend to be pushed aside by incremental, piecemeal decisions made at separate steps as part of the larger budgetary and financial management processes, but without any overarching framework.

This does not make such decisions and processes irrational, but decision-based rationality has its own dynamic that is not necessarily consistent with state policies or with public perceptions.

Additional barriers to change result from the involvement of many different parties in the tuition-setting process. With governors and legislatures, coordinating boards and university regents, students, and the public all having some preconceived values and direct interest in tuition decisions, it is understandably difficult to generate anything resembling consensus. And consensus is necessary to change anything so set

in tradition as the language in a state constitution, perceptions of the public with respect to "their" institutions, or the well-established patterns of higher education financing.

> *It is understandably difficult to generate anything resembling consensus. And consensus is necessary . . .*

Despite these barriers—or, perhaps, because there is no apparent way around these dilemmas—many states are engaged in re-examining their established tuition policies, and are attempting to devise new tuition-setting procedures and principles. The examination and reformation of state tuition policies is a difficult process, and the frustration of facing both higher costs and the threat of lower services can turn decisions into volatile political issues. The struggles to define new policies and the degree of success achieved so far can best be illustrated with some brief examples.

In California, the Postsecondary Education Commission established an Ad Hoc Committee on the Financing and Future of California Higher Education to re-examine the tuition and fee policies for the three public sectors in California in light of overall student and state resources. Several reports and special studies already have been issued, along with a set of policy options that include analysis of the potential effects on students and enrollments.

The governing boards and several non-governmental organizations in California also are involved in this public debate, which is being driven, to a significant degree, by the state's budget deficits and changing economic and social conditions. Based on the deliberations of the committee, in mid-1993 the full commission issued recommendations for "A New State Policy on Undergraduate Student Charges at California's Public Universities."

Based on principles of cost-sharing with the state bearing the major share of the cost of instruction, the commission recommended that student charges should be no more than 30 percent of the average cost of instruction at institutions within the California State University System, and no more than 40 percent of the cost of instruction at institutions within the University of California System, with state funding bearing 70 percent and 60 percent, respectively.

Once student charges increase to these proportions of total cost, the report recommended that future increases be limited to the increase in the cost of instruction, the increase in the Higher Education Price Index, or the increase in per-capita personal income in the state. The report also recommended that the state increase its support of the California grant program by amounts to cover tuition increases for all financially needy students.

> *. . . the frustration of facing both higher costs and . . . lower services can turn decisions into volatile political issues.*

The most important messages of this report, it should be noted, were directed at the state with respect to public funding, not at the institutions or students.

Florida has been struggling to implement a comprehensive tuition policy for several years. The state's tradition of relatively low tuition, in combination with an effective student lobby, meant that tuition at both four-year and two-year public institutions in Florida did not keep pace with national trends in the last decade.

The most significant increases occurred in student activity and service fees, which are under institutional control. In the early 1990s when the long period of growth in state revenue support ended, the legislature adopted a tuition-indexing policy that directed the Florida Board of Regents and the State Board of Community Colleges to set resident tuition at a level that produces revenues equivalent to 25 percent of the prior year's full cost of the education.

However, the legislature retained the prerogative to override these decision guidelines in the appropriations process, by requiring the state boards to modify the tuition levels to comply with language and amounts in the appropriations act. As a result of the state's fiscal conditions, tuition policies in Florida are still very much under debate, with several different options under consideration in the context of a new state master plan for higher education.

In Oregon, very rapid and substantial tuition increases were justified as responses to fiscal conditions and state funding needs beyond the control of elected officials as well as higher education. As a result of the property tax limitation passed by Oregon voters in 1990, large cuts were required in state general fund support for the Oregon System of Higher Institutions (universities and other four-year institutions), in part to offset the local revenue losses for school districts and community colleges.

Tuition was increased 33 percent in 1991–92, followed by more modest increases in subsequent years. Unless tax reform or increases are forthcoming, by 1995–97 total reductions in state appropriation levels for the Oregon system institutions will be over 40 percent. Even within these severe constraints, however, an explicit "high tuition"

> *In Oregon, . . . the govenor, legislature, and system board are "demanding" that institutions reduce adminsistrative costs and increase faculty workload in order to lower the per-student costs.*

policy was not acceptable to education policy makers in Oregon, while students and the public seemed to accept the one-time jump in tuition levels as an unavoidable adjustment to the property tax limitation.

However, as the effects of lower state funding, limited tuition increases, and enrollment caps become clear, the governor, legislature, and system board are "demanding" that institutions reduce administrative costs and increase faculty workload in order to lower the per-student costs.

Similarly, in New York, severe state budget reductions have been the driving force behind rapid tuition increases and decreases in discretionary student-aid programs.

> *. . . in New York, severe state budget reductions have been the driving force behind rapid tuition increases and decreases in descretionary student-aid programs.*

Political leaders and the legislature, however, have been more inclined toward taking these cuts out of the existing institutional budgets or future budget increases, rather than setting aside the existing moderate tuition policies. Or as the Ohio Board of Regents responded, "State policy makers apparently believe that it is possible to impose simultaneously significant reductions in state support and limit fees to single digit increases."

In Utah, state general-fund support for higher education has been relatively stable, but large enrollment increases projected for the next decade are creating pressure to raise tuition as the only means to meet the increased enrollment demand. Tuition rates in Utah are likely to increase if this is the only way to provide adequate student access.

Virginia also is projecting significant enrollment increases, and unlike Utah, has also gone through a period of state budget reductions for higher education. In part, as a result of these contradictory pressures, Virginia has no state-level tuition policies in effect for the first time since the mid-1970s. The long-standing policy of indexing tuition to the cost of education was set aside

> *In Utah, . . . [there is] pressure to raise tuition as the only means to meet the increased enrollment demand.*

because of the sharp reductions in state support, resulting in a jump in average student charges from 34 percent of education costs in 1989–90 to 47 percent in 1992–93.

and still going up. The survey response from the Virginia State Council of Higher Education indicated the following:

> At this point it is not possible to speculate on the odds of returning to a more comprehensive, indexed tuition and fee policy, although there is a desire at the institutional level to do so. It is apparent that the structure of higher education in Virginia must change. The General Assembly has directed the council to "pursue opportunities to restructure," particularly in the areas of staffing productivity and curricular change. Long-term changes are needed to minimize costs and to prepare for the demands of projected enrollment increases, as outlined in the council report, *Higher Education for the 21st Century*.

Even in states that have been at the forefront of a high-tuition strategy for higher education, there has been an increased awareness of the need to review their policies in light of the financial resources of the state and students.

Vermont, the foremost example of a state taking a high tuition/high aid approach, allowed tuition to become the primary source for public institution funding, in part, based on an assumption that continued growth in federal aid would prevent students from being priced out of the market.

State general fund appropriations continued to decline, from 35 percent of the state colleges "all funds" budget in 1975 to 20 percent at current levels. The flattening of federal student aid made Vermont's high tuition even less affordable, particularly for lower and middle income students, while state and institutional support for student aid also became more difficult to maintain.

In addition, the depressed economy precluded the state from reversing the decline in support for higher education, and made it more difficult for students and families to borrow money or pay the out-of-pocket costs of college attendance in the state.

In short, the high tuition/high aid policies in Vermont confronted conditions and contributed to changes not anticipated at the time this strategy was adopted, resulting in what is now widely seen as the "regrettable tuition dependency" of the public institutions.

These examples should not leave the impression that all states and all public institutions are compromising existing tuition policies or struggling against great odds to maintain outdated beliefs in what higher education should cost. That is not the case. Some states are continuing to use the broad policy guidelines in place and relatively unchanged for several decades. But this is a decreasing number of states where reasonably stable state funding combines with modest changes in enrollment to allow incremental increases in public tuition rates.

Tuition policy is not yet an issue of state policy in another group of states, where tuition decisions are made entirely by separate institutional governing boards, and public institutions are not governed or coordinated at the state level. Michigan and Pennsylvania are leading examples of this group. Neither state has defined a comprehensive set of tuition policies or principles, and both for many years have had public institution tuition levels well above the national averages.

> *Most states are struggling either to maintain or to redefine some set of principles or guidelines. . . within which to set public institution tuition levels . . .*

These two groups of states together, however, comprise a small and diminishing minority.

Most states are struggling either to maintain or to redefine some set of principles or guidelines—in some cases a new public philosophy—within which to set public institution tuition levels, and against which to measure state and public support for these institutions. Some of these states are bending more toward necessity, coping with immediate budgetary needs in tight budgetary times.

As one state commissioner for higher education stated, "We don't have the resources to be philosophical about tuition." Other states are studying the options, or are so constrained by the politics of tuition decisions that "being philosophical about it" appears to be the only way out.

Most states are struggling to balance philosophy and necessity, since the dilemma of tuition policy is not whether to adhere to some philosophy or to meet immediate financial needs, but how to do both.

The apparent result is that the principles embedded in existing tuition policies are being undermined by continuous tuition increases at a time when other sources of revenue are changing more slowly.

The evidence is still preliminary and mixed, but in at least some states these factors are forcing a re-examination and restructuring of the budgetary procedures and expenditure patterns that drive the tuition increases. This, in the end, may be the most important role for state tuition policy, particularly in this period of budgetary constraints, changing social needs, and new educational challenges.

In terms of public policy, tuition has much more to do with the changing nature of public higher education than with the setting of specific charges and rates. This is where the stakes are highest, and where some vision that goes beyond the mechanics of year-to-year budgetary needs will be required.

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NOTES

[1] Carnegie Commission for Higher Education, *Higher Education: Who Pays? Who Benefits? Who Should Pay?* (Berkeley, CA: 1973).

[2] Carnegie Commission on Higher Education, *Tuition, A Supplemental Statement to the Report of the Carnegie Commission for Higher Education on "Who Pays? Who Benefits? Who Should Pay?"* (Berkeley, CA: 1974).

[3] *Tuition*, p. 19.

[4] Based on 1971 per capita personal income and 1972-73 tuition rates.

[5] New England Board of Higher Education, Southern Regional Education Board, and the Western Interstate Commission for Higher Education. The new Midwestern Education Commission does not yet administer such programs.

[6] National Center for Education Statistics, *Current Fund Revenues and Expenditures of Institutions of Higher Education: Fiscal Years 1983 Through 1991*, NCES 93-323, U.S. Department of Education, May 1993.

[7] These calculations are based on the inflation- enrollment- adjusted data in Scott W. Blaisdell, Michael S. McPherson, and Morton Owen Shapiro, *Trends in Revenues and Expenditures in U.S. Higher Education: Where Does the Money Come From? Where Does it Go?* Williams Project on the Economics of Higher Education, Discussion Paper 17, Williamstown, MA (June 1992 for private circulation).

[8] The same conditions and dilemmas are faced by many private institutions as well. That topic would require another study, despite the many parallels.

Appendix A

The 1992-93 SHEEO Survey on State Tuition Policies

The following questionnaire was distributed to State Higher Education Executive Officers (SHEEOs) in late 1992. Responses were received from all fifty states prior to February 1993. In most cases, the respondent was the State Higher Education Finance Officer (SHEFO) within a statewide coordinating or governing board. In cases where one organization or individual could not respond for all sectors of public higher education, responses were sought (and generally received) from the appropriate organizations dealing with each sector. For example, responses for several states were provided by one agency for four-year public institutions and another statewide agency for two-year community colleges, in order to reflect the structure of institutional governance and state policy in the state. These responses were combined in the analysis, indicating the differences across sectors as necessary. In some instances, questionnaire responses were augmented through additional communications or with more recent materials.

Raw data tables and summaries are available from the SHEEO office. These include frequency tables and common statistics for numerical questions, as well as lists of states for alternative-choice questions. For non-numerical questions and responses, some coding was done in the analysis of data. In other instances, the raw data files include verbatim comments or a summary of the responses.

The raw data files are available either for specific questions or for the entire questionnaire. For additional information or ordering information contact the SHEEO Office at (303)-299-3686.

STATE HIGHER EDUCATION EXECUTIVE OFFICERS SURVEY ON STATE TUITION POLICIES

This survey solicits information on state-level policies and procedures governing public higher education tuition and other student charges. Questions on four topics are included:

1. The underlying philosophy or set of principles for setting public institution tuition, and the governmental authority under which tuition rates are set.

2. Economic and cost factors taken into account in setting tuition rates.

3. Policies that differentiate tuition levels for different categories of students and govern the granting of waivers.

4. Treatment of tuition revenues in the budgetary process, and the use of tuition revenues for student financial aid and other purposes.

Some questions are intended to update and clarify information collected through the last SHEEO survey on this topic in 1988. Other questions are new or expanded to reflect the changing financial and political circumstances in which tuition rates are set. This is not a survey of the actual rates or amounts of current tuition, since there are already several sources for these data.

For simplicity, the term "tuition" as used in this survey includes all standard student charges (including required "education fees" in states that prohibit tuition per se). To the extent possible, this generic "tuition" category should include all mandatory fees used to support education functions and facilities (e.g., fees dedicated to academic facilities debt repayment), but not those used to support optional or non-academic services (e.g., health services, recreation facilities, athletic programs and

dormitories). Several clarifying questions solicit information on the proportion of tuition and fee revenues used to support operating budgets, capital budgets, auxiliary enterprises, or programs. Recognizing that these practices vary across states and institutions, the intent of this survey is to gather information on the major and most general student charges. "Tuition policies" in this context may include constitutional or statutory provisions, governing or coordinating board policies or procedures, and less formal practices within the appropriations, budget review, or formula funding systems that affect tuition charges within the state.

Tuition Philosophy

1. Below are five statements which characterize different philosophies or approaches used in set ting tuition levels. Please indicate the single "best" characterization for each of the three major public sectors (research universities, state colleges and regional universities, and community colleges), or characterize in your own words the philosophy or approaches used.

   a. Tuition in this sector reflects a "low-tuition" philosophy, with student charges as close to zero as possible in order to maximize access.

   b. Tuition in this sector reflects a "moderate tuition" or proportional cost-sharing philosophy in which the state provides a stable proportion equal to more than one-half of education costs. (Indicate the approximate "proportions" in explanation.)

   c. Tuition in this sector reflects a "high-tuition" strategy, with tuition levels increasing more rapidly than state support in the belief that students who have the ability to pay should bear a larger proportion of their education costs.

   d. Tuition in this sector is set in relation to tuition levels in other states or at peer institutions, or is "indexed" to specific economic variables (e.g., consumer price index, state per sonal income).

   e. Tuition in this sector is guided by institutional-level philosophy or budgetary needs, and there is no guiding philosophy or approach at the state level.

2. For each governmental body listed below, please indicate the sector(s) over which it exercises a direct role in establishing tuition rates. In the explanation, indicate whether this is a legal responsibility, a functional responsibility (e.g., implementing recommendations or decisions of other bodies), or some combination of roles.

	Public Research Universities	State Colleges and Regional Universities	Public Community Colleges	No Direct Role
A. State Legislature				
B. State Coordinating Board				
C. Statewide Governing Board				
D. Multi-institutional Governing Board				
E. Single Institution or Local District Board				
F. Other (specify)				

3. Please describe briefly your perception of the direction of tuition policies in your state, and what factors will shape the underlying philosophy and policies in the next several years. Please comment on the following factors and others, as appropriate:

   • private-public sector tuition differentials,

   • the national research and debate over high tuition/high financial aid strategies,

   • growing public concern over high education costs and accountability, and

   • student and public reactions to tuition increases.

Please attach additional pages, if necessary, and relevant printed materials.

Economic and Cost Factors

4. Please indicate the extent to which the following financial factors are taken into account in setting tuition rates or increases. Indicate whether there is a direct linkage ("indexing") between the factor and the tuition level or increase; an indirect relationship in which the factor is generally taken into consideration; or the factor is not taken into account. Indicate sector (research universities, state colleges, community colleges) when necessary.

	Indexed	Indirect	Not Taken Into Account
A. Consumer Price Index (CPI)			
B. Higher Education Price Index (HEPI)			
C. State personal income or disposal income			
D. Cost of education or instructional costs (Briefly define terms and relationship.)			
E. Peer group or other inter-institutional comparisons (Briefly define method.)			
F. State general fund appropriations for higher education			
G. Other (specify)			

5. Please estimate the proportion of the cost of undergraduate education met by tuition for each of the three major sectors.

   a. Tuition at research universities meets _____% of instructional costs.

   b. Tuition at state colleges and regional universities meets ____ % of instructional costs.

c. Tuition at community colleges meets _____ % of instructional costs.

6. At any time since January 1, 1988, have revenue shortfalls or legislative recisions resulted in tuition surcharges, mid-year increases or other mid-year tuition adjustments?

❑ Yes ❑ No

If yes, briefly describe the circumstances and extent of the mid-year changes in chronological order.

Tuition Categories and Waivers

7. Does your state have explicit tuition/fee policies (legislation, rules, written guidelines) or practices with respect to the following? If yes, briefly describe. (Answers should reflect policies for four-year institutions, unless otherwise indicated.)

a. Non-resident undergraduates (e.g., full-cost or as a multiple of resident rates)
❑ Yes (Describe.) ❑ No

b. Graduate/professional students
❑ Yes (Describe) ❑ No

c. Foreign nationals
❑ Yes (Describe) ❑ No

d. Level or program differentiation for undergraduates (lower, upper division, different schools)
❑ Yes (Describe) ❑ No

e. Mandatory non-instructional fees (e.g., student services, athletics, health, etc.)
❑ Yes (Describe) ❑ No

f. Special, non-traditional programs (e.g., on-site, mid-career, professional development)
❑ Yes (Describe) ❑ No

g. Other (Please describe):

8. Do public institutions in your state provide tuition waivers for any of the following categories of students? Please indicate the extent and limits for these waivers (e.g., 100 percent tuition waiver, credit hour limits, etc.)

	Yes, Under State Statutes or Policies	Yes, Based on Institutional Discretion	No
A. Dependents of deceased police officers, firefighters, or other public servants			
B. Faculty/staff members Describe:			
C. Dependents of faculty/staff			
D. Graduate teaching assistants			
E. Public service programs (e.g., Campus Compact)			
F. Student athletes			
G. Veterans, National Guard			
H. Students who qualify for need-based aid			
I. Students who qualify for merit-based aid (academic scholarships)			
J. Senior citizens			
K. State employees or dependents			
L. Other (specify)			

9. Has your state considered or implemented any of the following tuition or student assistance options?

	Under Consideration	Implemented	Terminated	No
A. Tuition prepayment plans				
B. Tuition savings plans				
C. State-based work/study programs				
D. Loan forgiveness programs for targeted fields				
E. Community/public service with some tuition benefits				
F. Merit-based scholarships				
G. Taylor plans/Eugene Lang programs (waivers guaranteed at early age on condition of successful high school completion)				
H. Other (specify)				

Please provide brief explanation or include descriptive materials.

10. Does your state have undergraduate tuition reciprocity agreements with other states?

❑ Yes ❑No

If yes, please briefly explain type and extent of reciprocity agreements.

11. Which statement below best describes control over public institution tuition revenues in your state? Please indicate only one for each sector and note exceptions below.

a. Revenues from tuition are retained at the campus or institution level.

b. Revenues from tuition are retained at the state-level under the control of a multi-institution governing or coordinating board.

c. Revenues from tuition are held in separate state tuition accounts from which all funds must be appropratied prior to expenditure for higher education purposes.

d. Revenues from tuition are deposited in the state general funds, with their return to higher education only inferred.

A. At research universities, statement ____best characterizes our approach.

B. At state colleges and universities, statement____best characterizes our approach.

C. At community colleges, statement____best characterizes our approach.

12. Below are three statements that characterize state funding approaches for higher education. Please indicate the single "best" characterization for each major public sector in your state, or explain the approach used.

a. We use a formula-funding approach for budget development and allocations that incorporate various workload factors (such as expected enrollments, student-faculty ratios, standard costs) and some mission or program differentiation. Tuition revenues enter this process indirectly through estimated enrollments.

b. We use a formula or guidelines for budget development and resource allocation that, in addition to workload factors, also take into account estimated or actual resources available from various sources, including tuition revenues.

c. We use an institution-based budgeting approach, in which the revenues and expenditures of each institution are reviewed by some state-level agency (governing/coordination board, state budget office or legislature). Tuition revenues are examined in the context of projected enrollments and institutional budgets.

A. At research universities, statement ____best characterizes our approach.

B. At state colleges and universities, statement____ best characterizes our approach.

C. At community colleges, statement ___ best characterizes our approach.

Treatment of Tuition Revenues

13. Please describe briefly when and by whom actual revenues from tuition are checked against estimates, and adjustments made for additional collections (carry-over) or shortfalls, and if these affect general fund support. Indicate any differences in these procedures for public research universities, state colleges and regional universities, and community colleges.

14. Which statement below best characterizes the relationship between public institution tuition and student financial aid in your state? In particular, indicate in your response the proportion of tuition revenues dedicated to offsetting tuition increases for financially-needy students.

❑ A. State student financial aid programs explicitly take into account public institution tuition levels and increases. If yes, briefly explain this relationship (e.g., the proportion of tuition revenues or increases earmarked for student aid, full funding of calculated student "need," etc.)

❑ B. Student financial aid at public institutions is governed by policies or guidelines established at the state level, but funded and implemented at the institution level. If yes, indicate types of policies and how effectively these operate.

❑ C. Student financial aid is provided by institutions without significant guidance or support from the state level.

❑ D. Other (please explain):

15. Do you have state policies on the use of tuition revenues for capital expenditures, auxiliary enterprises, athletic/recreational programs or facilities, or other non-Education and General (E&G) or non-instructional expenditures?

❑ Yes ❑ No

If yes, please describe briefly:

Appendix B

The Washington Higher Education Coordinating Board Data Base on Tuition and Fees

The following tables provide a summary of resident undergraduate tuition/fee rates for selected years by state and sector. These data were compiled from various national data bases.

Data on tuition and fee rates are compiled regularly by several different organizations, including the National Center for Education Statistics, the College Board, the American Association of State Colleges and Universities, and the Western Interstate Commission for Higher Education. These sources provide institution-specific data on standard tuition/fees and, in some instances, other types of student charges or costs. Some sources are limited to specific levels (undergraduate students), sectors (public institutions) or regions. For a description of these sources and data availability see the *Compendium of National Data Sources on Higher Education*, updated and published by SHEEO in 1993.

For state-level data on average tuition in public institutions, the best source is the database compiled and updated annually by the Washington Higher Education Coordinating Board. This data set, compiled in conjunction with the tuition-setting procedures for public institutions in Washington, contains tuition rates (resident and non-resident) for undergraduate and graduate levels for three categories of public institutions: universities (defined as "the university of" or comparable institution in each state), colleges and state universities (the average rates from a consistent sample of one to fourteen institutions in all states except Delaware, Hawaii, and Wyoming) and community colleges (an estimated state average). In addition, providing close and reasonable approximation of state averages, the great strength of this database is in the consistency over time; it contains data for the same institutions consistently collected and reported since 1972–73. Data on tuition rates for selected professional fields by institution are also available.

The complete Washington Coordinating Board database is available on diskette. Annual reports by the board contain selected data in table formats. Write for additional information or to obtain copies:

Patty Mosqueda
Higher Education Coordinating Board
917 Lakeridge Way
P.O. Box 43430
Olympia, WA 98504-3430
206-586-8111

Table B-1
Public Research Universities
Resident Undergraduate Tuition and/or Required Fees (state averages)

STATE	1972-73	1977-78	1982-83	1987-88	1992-93
Alabama	510	645	1,074	1,572	2,068
Alaska	402	512	688	1,298	2,058
Arizona	411	450	710	1,196	1,590
Arkansas	400	460	720	1,230	1,838
California	644	710	1,175	1,473	3,249
Colorado	576	800	1,221	1,861	2,540
Connecticut	655	968	1,225	2,133	3,902
Delaware	475	1,008	1,367	2,501	3,722
Florida*	570	709	795	1,108	1,706
Georgia	519	702	1,107	1,770	2,175
Hawaii	233	478	480	1,090	1,437
Idaho	356	434	816	1,042	1,296
Illinois	686	814	1,302	2,365	3,458
Indiana	650	810	1,328	1,857	2,685
Iowa	620	750	1,040	1,564	2,228
Kansas	486	688	904	1,325	1,798
Kentucky	405	550	846	1,412	1,998
Louisiana	320	440	798	1,724	2,173
Maine	562	805	1,440	1,846	3,086
Maryland	639	784	1,185	1,740	2,903
Massachusetts	469	770	1,545	2,006	4,799
Michigan*	696	1,078	2,144	2,828	4,584
Minnesota*	641	927	1,608	2,331	3,326
Mississippi	516	703	1,167	1,780	2,435
Missouri	540	644	1,068	1,669	2,788
Montana	471	613	825	1,238	1,892
Nebraska	535	763	1,048	1,565	2,120
Nevada	519	660	930	1,080	1,635
New Hampshire	1,033	1,098	1,956	2,754	3,941
New Jersey	665	963	1,678	2,573	4,040
New Mexico	456	520	757	1,152	1,656
New York	815	892	1,150	1,474	3,073
North Carolina	422	524	702	845	1,249
North Dakota	456	545	804	1,412	2,166
Ohio	750	915	1,458	1,890	2,799
Oklahoma	445	541	722	1,087	1,768
Oregon	534	740	1,380	1,555	2,721
Pennsylvania	885	1,263	2,118	3,292	4,618
Rhode Island	761	974	1,504	2,090	3,540
South Carolina	570	732	1,190	2,028	2,818
South Dakota	500	653	1,066	1,631	2,073
Tennessee	399	495	804	1,368	1,862
Texas	267	378	452	876	1,420
Utah	480	545	960	1,437	2,105
Vermont	1,086	1,348	2,466	3,432	6,166
Virginia	597	804	1,350	2,366	3,890
Washington	564	660	1,176	1,731	2,253
West Virginia	292	403	840	1,366	1,928
Wisconsin	558	734	1,121	1,737	2,344
Wyoming	410	434	592	778	1,430
National Average	549	717	1,136	1,710	2,627

* Average of lower division and upper division charges.

Table B-2
State College and Regional Universities
Resident Undergraduate Tuition
and/or Required Fees (state averages)

STATE	1972-73	1977-78	1982-83	1987-88	1992-93
Alabama	433	556	922	1,269	1,832
Arizona	304	400	710	1,196	1,590
Arkansas	405	480	735	1,083	1,554
California	161	200	447	769	1,472
Colorado	392	540	892	1,269	1,697
Connecticut	515	679	906	1,329	2,722
Florida*	570	709	795	1,108	1,706
Georgia	400	529	800	1,335	1,643
Idaho	365	388	803	1,007	1,324
Illinois	586	678	1,074	1,704	2,647
Indiana	615	795	1,275	1,764	2,458
Iowa	600	694	990	1,548	2,228
Kansas	411	589	811	1,243	1,672
Kentucky	365	480	720	1,145	1,599
Louisiana	304	460	688	1,309	1,838
Maine	446	789	1,360	1,520	2,618
Maryland	427	771	1,218	1,780	2,637
Massachusetts	317	632	1,065	1,299	3,158
Michigan	525	781	1,359	1,675	2,570
Minnesota	453	596	974	1,653	2,276
Mississippi	436	566	873	1,595	2,164
Missouri	307	361	648	1,218	2,041
Montana	439	497	656	1,146	1,743
Nebraska	424	559	748	1,160	1,660
Nevada	532	720	930	1,080	1,665
New Hampshire	720	851	1,448	2,000	2,891
New Jersey	637	858	1,239	1,881	3,109
New Mexico	333	343	531	848	1,204
New York	765	867	1,138	1,478	2,901
North Carolina	456	523	662	847	1,217
North Dakota	400	482	699	1,226	1,720
Ohio	754	889	1,468	1,989	3,046
Oklahoma	340	407	520	790	1,355
Oregon	518	720	1,351	1,521	2,546
Pennsylvania	722	965	1,627	2,039	3,236
Rhode Island	490	625	938	1,392	2,498
South Carolina	410	460	860	1,340	2,440
South Dakota	460	628	993	1,499	2,026
Tennessee	365	478	740	1,129	1,586
Texas	258	348	397	886	1,384
Utah	405	522	762	1,095	1,542
Vermont	842	723	1,639	2,482	3,549
Virginia	544	746	1,327	2,215	3,368
Washington	495	591	942	1,272	1,785
West Virginia	255	327	597	1,008	1,781
Wisconsin	533	719	1,041	1,564	1,962
National Average**	466	598	942	1,385	2,123

*Average of lower division and upper division fees.
**Does not include Alaska, Delaware, Hawaii, Wyoming

Table B-3
Community College District Resident*
Tuition and/or Required Fees (state averages)

STATE	1982-83	1987-88	1992-93
Alabama	375	600	1,012
Alaska	634	766	1,288
Arizona	298	445	652
Arkansas	495	607	762
California	0	100	300
Colorado	631	778	1,271
Connecticut	434	708	1,276
Delaware	591	771	1,044
Florida	506	678	971
Georgia	534	897	1,104
Hawaii	90	325	460
Idaho	565	737	902
Illinois	549	815	1,107
Indiana	1,010	1,343	1,932
Iowa	639	937	1,557
Kansas	510	700	870
Kentucky	390	560	700
Louisiana	460	830	1,066
Maine	620	800	1,440
Maryland	643	1,020	1,500
Massachusetts	720	936	1,942
Michigan	740	857	1,298
Minnesota	821	1,238	1,688
Mississippi	400	616	942
Missouri	422	572	911
Montana	363	479	1,141
Nebraska	527	735	960
Nevada	510	626	840
New Jersey	662	993	1,572
New Mexico	345	447	558
New York	1,075	1,389	1,913
North Carolina	117	225	557
North Dakota	826	1,208	1,643
Ohio	868	1,190	1,746
Oklahoma	362	602	963
Oregon	540	684	1,008
Pennsylvania	880	1,182	1,578
Rhode Island	630	900	1,496
South Carolina	470	593	967
Tennessee	462	681	910
Texas	270	581	690
Utah	640	968	1,207
Vermont	828	1,304	1,918
Virginia	558	763	1,230
Washington	519	759	999
West Virginia	440	650	1,067
Wisconsin	927	1,393	1,516
Wyoming	349	547	807
National Average**	547	782	1,152

*For states which charge in-district, out-of-district, and out-of state rates, the in-district rate is shown. This applies to Arizona, Arkansas, Colorado and Montana.

**Does not include New Hampshire and South Dakota.

Appendix C

Summary Data on Tuition Revenues in Public Institutions, by State

The following tables present state-by-state data on tuition and fee revenues as a percent of total revenues and as a percent of "education and general" expenditures as reported by public institutions through the HEGIS Finance Survey and, in later years, the IPEDS Finance Survey. The surveys were administered and the data compiled by the National Center for Education Statistics (NCES) in the U.S. Department of Education as part of their regular statistical reporting functions. The database was assembled and the analysis to produce these tables was undertaken by the National Center for Higher Education Management Systems (NCHEMS) in Boulder, Colorado.

These data are reported annually and available since 1975–76. The analysis undertaken for this report was done on five-year intervals. Only the initial year and the most recent year for which complete data are currently available (1990–91) are included on the following table. Public institutions in each state are aggregated into three categories based on Carnegie classifications as follows: *Public Research* includes Research I and II; *Public Four-Year* includes Doctorate I, II, Comprehensive I, II, and Liberal Arts I, II; *Two-Year* includes public community colleges and others that offer two-year but not four-year degrees. A small number of specialized public institutions are not included.

The brief definitions given in the instructions to the IPEDS Finance Survey for current funds revenues and for revenues derived from tuition and fees are as follows:

Current Funds Revenues by Source

Unrestricted current funds are resources received by an institution that have no limitations or stipulations placed on them by external agencies or donors and restricted current funds are resources provided to an institution that have externally established limitations or stipulations placed on their use.

Current fund revenues include all unrestricted resources earned during the reporting period and restricted resources that were expended for current operating purposes. Current funds revenues do not include restricted current funds received but not expended because these revenues have not been earned.

Tuition and fees include student activity fees assessed against students for education purposes. Include tuition and fee remissions or exemptions even though there is no intention of collecting from the student. Include those tuitions and fees that are remitted to the state as an offset to the state appropriation. Charges for room, board, and other services rendered by auxiliary enterprises are not reported here.

More detailed definitions for tuition and fee revenues, including instructions on how to treat certain tuition waivers, refunds, and allocated proceeds, are found in the Financial Accounting and Reporting Manual for Higher Education by the National Association of College and University Business Officers (NACUBO) and the Higher Education Finance Manual, Data Providers' Guide by the National Center for Higher Education Management Systems (NCHEMS).

Education and general (E&G) expenditures are the sum of all expenditures reported in the categories of Instruction, Research, Public Service, Academic Support, Student Services, Institutional Support, Operation and Maintenance of Plant, and Scholarships and Fellowships. These expenditure sub-categories are briefly defined in the instructions to the Finance Survey and explained in more detail in the finance manuals cited above. These definitions notwithstanding, the complexity of financial accounts at most institutions leads to expenditures that may be categorized in different ways or excluded from the sum total which, in turn, affects the comparability of E&G expenditure data.

Definitionally, only expenditures attributable to auxiliary enterprises, hospitals, and other independent operations are outside of E&G expenditures. Some institutions or entire states feel that certain expenditures or allocated costs should be excluded from E&G expenditures to provide a better indicator of the actual or direct costs of the education received by students when comparing these costs to tuition.

Researchers, financial managers, policy makers, and others have often questioned the use of data on tuition revenues and E&G expenditures to make comparisons across institutions and states. Briefly, tuition and fee revenues are not a direct indicator of undergraduate tuition rates. The revenues may be comparatively high because of a large proportion of non-resident or graduate/professional students who pay higher rates, while resident undergraduate rates may be comparatively low. The ratio of tuition and fees to total revenues may be high because of a comparative lack of other types of revenue, including direct state support, even though tuition rates are not unusually high. The ratio between tuition and fees and E&G expenditures may also be more affected by differences in base expenditures (the denominator) than by differences in tuition that affect the numerator. Finally, comparatively high ratios between tuition revenues and total expenditures are most likely to reflect comparatively low levels of public (state and federal) support for public institutions, particularly when the revenues and expenditures for "restricted" uses are excluded. This makes it appear that these institutions or states are charging students more and have higher overall costs, even though the underlying factors may be lower support from other sources.

For these and other reasons, care is necessary in interpreting and using the following data. Comparisons across states should be done—if at all—with an understanding of and sensitivity to the differences in state systems and institutions—the types of students they serve, the educational services they provide and the diversity and complexity of institutional finance. Comparisons across time for single states or institutions may be more reliable, but even for such uses any changes in enrollment patterns, student characteristics, institutional missions and reporting procedures should be kept in mind.

Table C-1
Tuition and Fee Revenues for Public Institutions, by State, 1975-76 and 1990-91

State	Classification*	Tuition and Fees as a Percent of Total Revenue 1975-76	Tuition and Fees as a Percent of Total Revenue 1990-91	Tuition and Fees as a Percent of Total E&G Expenditures 1975-76	Tuition and Fees as a Percent of Total E&G Expenditures 1990-91	Tuition and Fees as a Percent of Unrestricted E&G Expenditures 1990-91
Alabama	Public Research	11.08	13.65	14.63	15.11	19.28
	Public Four-Year	23.02	22.00	27.43	25.61	30.48
	Two-Year	17.45	17.62	19.95	18.79	24.48
Alaska	Public Four-Year	6.75	11.92	7.47	12.05	14.40
Arizona	Public Research	14.94	20.00	18.54	23.25	29.32
	Public Four-Year	17.82	24.59	21.43	28.15	33.22
	Two-Year	10.35	15.40	12.46	16.86	21.79
Arkansas	Public Four-Year	14.11	20.02	17.96	23.07	29.09
	Two-Year	13.88	16.88	16.43	18.40	23.60
California	Public Research	7.08	7.71	10.90	10.32	14.25
	Public Four-Year	9.12	16.65	10.89	18.35	20.62
	Two-Year	2.20	4.38	2.37	4.79	5.75
Colorado	Public Research	19.29	28.95	24.36	33.23	47.32
	Public Four-Year	23.53	28.90	28.93	33.60	43.13
	Two-Year	14.65	22.18	16.59	24.24	30.64
Connecticut	Public Four-Year	27.47	25.69	37.96	30.35	32.55
	Two-Year	17.09	23.70	19.76	25.30	27.76
Delaware	Public Research	22.74	35.69	31.60	40.57	50.50
	Public Four-Year	13.79	16.25	16.32	18.82	23.94
	Two-Year	15.15	16.79	16.75	16.81	100.00

*Based on aggregated Carnegie Classifications: Public
Data Source: NCHEMS IPEDS Finance Database.
Research includes Research I and Research II; Public Four-Year includes Doctorate I, II, Comprehensive I, II and Liberal Arts I, II

State	Classification*	Tuition and Fees as a Percent of Total Revenue 1975-76	Tuition and Fees as a Percent of Total Revenue 1990-91	Tuition and Fees as a Percent of Total E&G Expenditures 1975-76	Tuition and Fees as a Percent of Total E&G Expenditures 1990-91	Tuition and Fees as a Percent of Unrestricted E&G Expenditures 1990-91
Florida	Public Research	9.96	10.05	12.81	11.35	15.49
	Public Four-Year	15.06	14.71	17.15	16.42	20.54
	Two-Year	20.48	18.27	22.44	19.26	22.76
Georgia	Public Research	13.29	11.36	14.90	12.57	18.33
	Public Four-Year	21.89	20.99	25.79	24.07	27.83
	Two-Year	20.59	19.50	23.81	21.43	25.07
Hawaii	Public Research	9.59	7.55	11.43	8.35	11.37
	Two-Year	5.18	10.97	5.72	11.52	12.66
Idaho	Public Four-Year	9.19	13.93	11.30	16.69	22.08
	Two-Year	11.73	13.00	13.97	15.21	20.64
Illinois	Public Research	12.97	13.14	15.01	15.95	21.51
	Public Four-Year	15.41	21.80	18.12	25.03	28.54
	Two-Year	17.70	17.67	18.71	19.12	26.27
Indiana	Public Research	15.51	22.13	20.46	27.99	36.40
	Public Four-Year	22.25	27.30	25.96	30.59	34.50
	Two-Year	22.01	23.59	28.01	25.19	35.02
Iowa	Public Research	10.28	11.35	15.02	16.86	24.69
	Public Four-Year	15.30	19.87	19.28	23.20	26.17
	Two-Year	17.72	21.09	21.30	23.63	31.34
Kansas	Public Research	12.92	17.74	15.10	21.52	25.40
	Public Four-Year	20.55	23.33	24.36	25.73	30.25
	Two-Year	17.85	11.69	21.15	13.25	16.01
Kentucky	Public Research	7.18	8.26	9.10	12.47	14.87
	Public Four-Year	16.70	19.64	19.81	22.34	26.50
Louisiana	Public Research	13.13	15.50	18.68	18.70	24.23
	Public Four-Year	13.31	25.97	16.79	30.27	39.80
	Two-Year	12.57	19.96	14.09	21.55	28.05

State	Classification*	Tuition and Fees as a Percent of Total Revenue 1975-76	Tuition and Fees as a Percent of Total Revenue 1990-91	Tuition and Fees as a Percent of Total E&G Expenditures 1975-76	Tuition and Fees as a Percent of Total E&G Expenditures 1990-91	Tuition and Fees as a Percent of Unrestricted E&G Expenditures 1990-91
Maine	Public Four-Year	14.77	19.49	18.12	22.93	28.71
	Two-Year	17.02	16.88	20.43	19.07	23.44
Maryland	Public Research	21.26	17.80	25.22	20.13	25.48
	Public Four-Year	21.67	21.01	24.69	25.12	27.94
	Two-Year	21.95	21.26	23.59	22.94	26.06
Massachusetts	Public Research	3.83	22.70	5.07	29.11	36.57
	Public Four-Year	19.69	36.40	24.82	42.01	327.86
	Two-Year	24.40	36.17	28.63	37.45	67.08
Michigan	Public Research	17.52	17.87	21.57	23.76	33.20
	Public Four-Year	21.29	25.99	26.15	31.61	37.17
	Two-Year	21.77	22.43	23.96	24.18	29.42
Minnesota	Public Research	9.43	9.04	12.87	12.16	20.30
	Public Four-Year	16.77	23.59	20.92	28.27	34.28
	Two-Year	20.16	22.27	21.55	25.47	30.14
Mississippi	Public Research	10.33	13.35	12.14	15.42	20.11
	Public Four-Year	16.89	19.72	21.55	24.09	34.37
	Two-Year	11.36	14.63	13.94	16.44	22.26
Missouri	Public Research	10.89	12.36	15.57	20.40	25.54
	Public Four-Year	15.60	24.82	18.52	28.23	33.11
	Two-Year	19.51	23.36	20.07	25.19	31.50
Montana	Public Four-Year	11.42	15.46	13.88	18.88	24.19
	Two-Year	11.83	11.82	12.56	13.35	19.38
Nebraska	Public Research	14.95	13.64	18.29	16.94	21.56
	Public Four-Year	21.20	21.20	24.70	25.05	31.08
	Two-Year	12.48	11.81	14.67	13.72	18.31
Nevada	Public Four-Year	16.26	13.48	17.35	15.32	20.50
	Two-Year	15.19	15.01	16.22	15.11	17.24

State	Classification*	Tuition and Fees as a Percent of Total Revenue 1975-76	Tuition and Fees as a Percent of Total Revenue 1990-91	Tuition and Fees as a Percent of Total E&G Expenditures 1975-76	Tuition and Fees as a Percent of Total E&G Expenditures 1990-91	Tuition and Fees as a Percent of Unrestricted E&G Expenditures 1990-91
Rhode Island	Public Research	17.62	27.03	21.07	31.98	41.58
	Public Four-Year	19.27	27.15	21.47	30.72	34.76
	Two-Year	18.06	25.98	19.90	27.79	32.89
South Carolina	Public Research	12.19	22.37	14.70	25.47	30.66
	Public Four-Year	19.96	27.06	23.06	32.19	36.92
	Two-Year	20.16	16.91	22.65	17.96	21.76
South Dakota	Public Four-Year	18.42	22.83	22.95	26.62	33.91
Tennessee	Public Research	13.48	14.89	16.47	17.99	23.83
	Public Four-Year	19.44	21.05	23.37	23.80	28.74
	Two-Year	16.92	18.86	18.97	19.40	26.59
Texas	Public Research	6.34	13.06	7.14	13.67	18.34
	Public Four-Year	8.55	16.87	11.28	19.84	24.21
	Two-Year	13.76	12.72	16.63	14.12	22.43
Utah	Public Research	9.86	9.29	12.35	12.23	24.59
	Public Four-Year	15.74	18.87	18.37	21.55	26.94
	Two-Year	12.89	19.07	14.98	21.78	28.15
Vermont	Public Four-Year	33.73	43.54	41.28	53.27	64.62
	Two-Year	18.68	34.51	21.75	39.23	48.90
Virginia	Public Research	11.08	13.49	17.71	22.09	31.66
	Public Four-Year	23.53	23.12	31.73	32.49	38.66
	Two-Year	16.58	21.04	16.75	21.66	25.75
Washington	Public Research	6.66	12.20	8.24	14.71	22.25
	Public Four-Year	12.02	20.57	14.82	25.80	30.79
	Two-Year	9.93	16.09	11.18	18.26	23.54
West Virginia	Public Research	4.47	18.95	5.57	22.82	30.30
	Public Four-Year	9.83	18.21	13.11	23.08	99.89
	Two-Year	22.66	22.56	24.31	26.47	94.52

State	Classification*	Tuition and Fees as a Percent of Total Revenue 1975-76	Tuition and Fees as a Percent of Total Revenue 1990-91	Tuition and Fees as a Percent of Total E&G Expenditures 1975-76	Tuition and Fees as a Percent of Total E&G Expenditures 1990-91	Tuition and Fees as a Percent of Unrestricted E&G Expenditures 1990-91
Wisconsin	Public Research	11.06	12.86	13.65	17.13	24.84
	Public Four-Year	19.45	24.67	24.01	27.71	30.92
	Two-Year	9.25	15.08	9.85	15.85	18.92
Wyoming	Public Research	11.53	9.55	14.13	11.73	14.43
	Two-Year	10.15	9.54	12.09	10.94	13.43
50-STATE TOTAL	Public Research	12.14	14.48	15.58	18.30	24.88
	Public Four-Year	17.86	22.29	21.64	26.07	39.35
	Two-Year	15.83	17.12	17.79	18.58	45.10

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